The Beaver

A MAGAZINE OF THE NORTH

PUBLISHED QUARTERLY BY Hudson's Bay Company. OUTFIT 281 MARCH 1951
INCORPORATED 2ND MAY 1670

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Canada's Prime Minister visits Beaver House in London. Left to right: Sir Patrick Ashley Cooper, Governor of the Hudson's Bay Company; Mr. St. Laurent; Hon. Dana L. Wilgress, High Commissioner for Canada. In the picture, Prince Rupert.

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ONE DOLLAR A YEAR

PUBLISHED QUARTERLY BY

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DOWN a wet and deeply rutted road with water-filled ditches we went bumping, slipping and skidding. All around us the flat marsh was soaking wet, the sky was bitter gray and though it was mid-July the wind felt more like early March.

At any ordinary time I would have been terrified at a slippery road which had not the slightest guard to save us from plunging straight into the canal, and I did cast hasty glances at the mammoth holes and deep twisting ruts ahead of us. But only occasional glances—most of my attention was given joyfully to the landscape.

For this was the wide Delta marsh again, 36,000 acres of tules, bulrushes and cattails, broken by channels and lakes, where wildfowl abounded. And we were on our way to its Waterfowl Research Station (where five years ago we had had a glorious spring) with another chance to see the marsh and the friends we had made there. We had left the train at Portage la Prairie, fifty-four miles west of Winnipeg, and now eighteen miles to the north was the little fishing village of Delta on Lake Manitoba, where the research station was located.

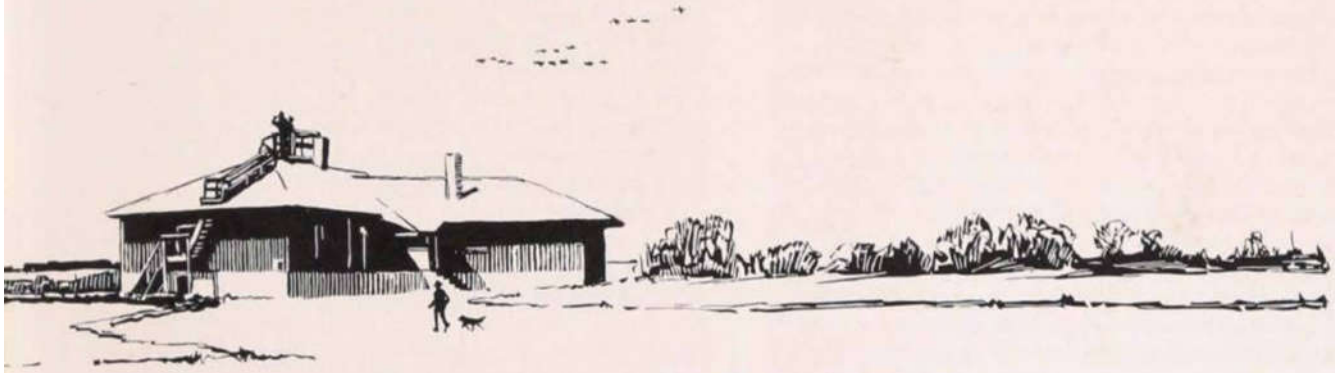
Our eyes swept across the great horizontal surfaces—how good it was to see the life of this vast marshy country again! "There are teal flying!" "Look, isn't that a bittern?" "See the shovellers,—and there's a phalarope!" "Pintail necks—they're sticking up all through the grass—"

DELTA REVISITED

by FLORENCE PAGE JAQUES

Illustrated by FRANCIS LEE JAQUES

In their book "Canadian Spring" Mr. and Mrs. Jaques told of their visit to Delta marsh in 1946. Here they return to see the work being done there in midsummer.



The Waterfowl Research Station at Delta, on the shores of Lake Manitoba.

"There's Delta, bless its heart. Behind the willows, there's the store—" Lee and I, eager for first glimpses, hardly listened to each other.

I don't know of anything more thrilling than to see a young thing, that you have affection for and have known in its early promise, come into its own. This was our experience now.

When we had first visited Delta, the Waterfowl Research Station was just starting, with a staff of only three men—Albert Hochbaum, director of the station and author of the classic *Canvasback on a Prairie Marsh*, for which he received the Brewster Medal in 1944; Peter Ward, who was in charge of the station's wildfowl hatchery, and who was making a life study of the coot; and Lyle Sowls, a biologist from Wisconsin, just beginning the series of nesting studies which he is now completing.

Mr. James F. Bell, the founder of General Mills in Minneapolis, first had the idea of using the great Delta marsh for scientific study. Lying as it does between Lake Manitoba and the farmland of the Portage Plains, it is a nesting ground for many species of wildfowl. Mallards, gadwall, blue-winged teal, shovellers, pintails, redheads, canvasbacks, lesser scaup, white-winged scoters and ruddy ducks are common breeders here.

This marsh is exceptionally valuable for study purposes not only because of the variety of waterfowl but also

because it does not dry up in droughts and the marsh adjoins pastures, hayfields and croplands, so that the wildfowl may be studied in various relationships with man.

It is also exceptionally beautiful, with its blue waters and great islands of yellow cane, between a wooded ridge along Lake Manitoba on the north, and to the south the open farmland broken by clumps or "bluffs" of trees. Here, besides the great flocks of ducks, are found Canada geese, Richardson's geese and sometimes blue and snows, on migration whistling swans in the spring, and grebes—especially the Western grebe, whose courtship dance, in which the male and female stand up on the water and rush along together with exactly similar motions, is so strange and amusing.

Mr. Bell established the Delta Waterfowl Research Station in 1931. Soon the American Wildlife Foundation became interested and helped to direct a research program; more and more waterfowl agencies joined in and in 1949 and 1950 biologists from many parts of the United States and Canada were working on projects here. As Harold Titus in *Field and Stream* put it, "Here is the lone spot on the continent's vast duck-producing area where a competent staff on a typical site with sufficient equipment has been established for a truly long-pull investigation of all those factors which govern waterfowl abundance."

So now we found, besides Al, Peter and Lyle, with whom we had explored the marsh by canoe in 1946, a new crew of enthusiasts. There was Arthur Hawkins, flyway biologist of the U.S. Fish and Wildlife Service, the leader of a survey team which took a census of breeding waterfowl each spring, appraising the population both from the ground and from the air.

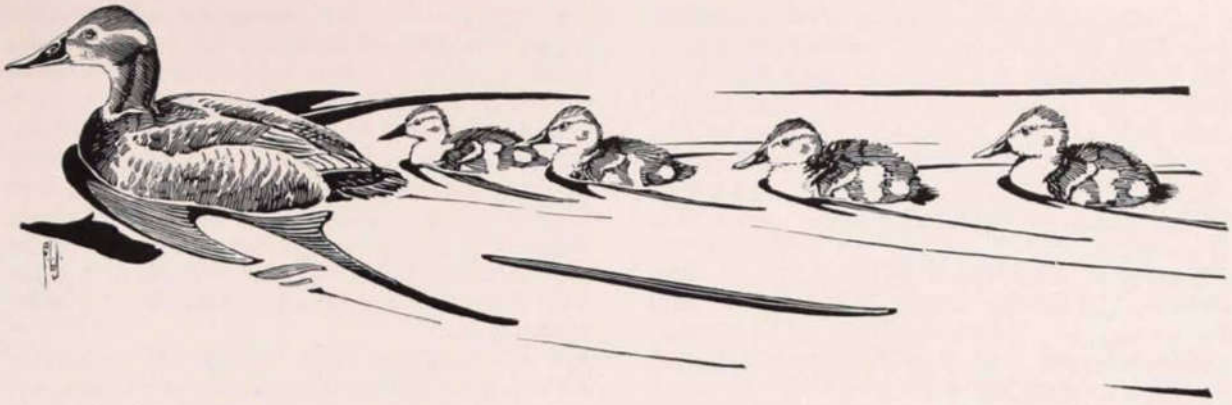
Dr. Robert McCabe, Professor of Game Management at the University of Wisconsin, was in charge of five or six students who were engaged in field research; and in between discussions of the projects they were working on, he was constructing a new duck decoy which had been designed by Peter Scott for the Station. It is made of netting and reeds, through which the wildfowl are led into a cul-de-sac where they can be caught and banded. In England food may entice the ducks, but the most successful and extraordinary method is to use a small dog who is trained to run from the ducks instead of toward them. The ducks will then "mob" the dog as small birds mob an owl, and so are led into the trap.

At Delta a friend from Minnesota was awaiting us. Dr. Walter Breckenridge, the director of the Natural History Museum at the University of Minnesota, had come to prepare a motion picture on these research activities, so that sportsmen, and laymen in general, might learn what practical value these investigations had for them.

The sights and sounds of the marsh seemed as familiar as if we hadn't been away—an owl flitting over the marsh-grass, the rustle of the plume-headed yellow canes. But we were simply amazed at the changes in the Station itself. In 1946 it had been quite sketchy, consisting of a hatchery, two cottages for the Hochbaums and the Wards, and four abandoned mink houses, (two of which were kept for storage, one as an office and one used by the Sowls as a residence). Lee and I had camped out in two tiny fishing shacks on the edge of the marsh—cabooses, they are called in Manitoba—one of which was our bedroom and the other our kitchen and living quarters but now there were living facilities, summer cottages, and one-room shacks for eight families and ten single men. Our little "cabooses" of four years ago had disappeared, and instead we were led to an attractive lodge near the hatchery.

We recognized that lodge! We remembered that we had often passed it, far down the road along the lake shore. Deserted and dilapidated, it was famous for once having sheltered the Duke of York—later King George V. Famous also, the Indians insisted, for sheltering a ghost—or rather, the head of one, which sailed out over the marsh every night at the stroke of twelve. Pete had told us about a

Coots.



Canvasback brood.

Chinese cook who had been sure, one evening when an old horse thrust its head in the kitchen window, that the ghost had come for him.

Last winter the staff had moved this lodge across the marsh over the ice, and here it was, a most attractive guest house. There was a wide lounge with a huge fireplace, a screened porch that looked directly on the study ponds, and a lookout tower on the roof.

This last idea was a real inspiration. At any time of the day or night, simply by climbing an outside stairway, we could look far out over the great marsh on three sides of us, and on the north to Lake Manitoba itself. Franklin's gulls, black terns and Forster's terns wheeled and cried over our heads, we could see pelicans taking their solemn way across the sky, and peer into ponds and channels of the marsh where mother ducks swam, leading strings or close-packed huddles of small ducklings.

This was the time of year when the drakes had taken to their moulting areas, secretive in their flightless state, and I missed the brilliantly-colored males we had seen in the spring. I was sorry, too, that it was too late to see a moult in mid-air, which Al said sometimes happened—when the drake, to his surprise, has his wing-feathers suddenly drop away from him, and falls, like Icarus, into the marsh.

The tower was said to be a wonderful place from which to see flights of birds against sunset or sunrise, to see northern lights, or the full moon coming up; all that we saw were more black storms rushing at us. The sporting event of each day was to watch from the tower to see if whoever drove into town got through the worst stretch of road successfully or if he bogged down and needed a rescue squad.

Other improvements abounded. The rear of the office had been converted into a studio, for both Al and Pete are excellent painters of wildfowl, and part of the hatchery had been made into a laboratory, (though a separate laboratory is badly needed). In the nearby study ponds, which were made by enclosing a section of marsh and water with wire fencing, were wing-clipped ducks, geese and swans, convenient for observation.

We had looked forward to spending long sunny days exploring blue waterways in our canoe, flushing ducks from the reeds, and finding nests of marsh-birds, as we had during our earlier visit. The blustery weather made that impossible, and my heart was wrung as day after day was lost as far as canoeing went. But we never were bored; so many fascinating activities were going on that we could not begin to keep up with them.

The hatchery teemed with tiny ducklings of many species, including greater scaup hatched from eggs flown down from Alaska. There was even a spectacled eider just hatched out, a little puff of brownish gray, his big spectacles marked out clearly in his fuzzy down.

We had a hilarious time watching Dr. Breckenridge take movies of three bright scarlet ducklings in a tiny puddle edged with green grass. It looked more like a Disney scene than an authentic one but it was actual enough. Charles Evans from the University of Minnesota, while studying the movements of waterfowl broods, worked out an ingenious scheme; he injected eggs with dyes during the brooding periods and the ducklings came out of the eggs a brilliant red, green or blue, as the dye might be, and continued to be bright little things until they were half-grown. As in that way they could be followed as individual broods, much new information was gathered as to where the families went on the nesting waters.

One rainy morning we went out along the marsh road with Breck and Lyle Sowls, Breck hoping the storm clouds might break away long enough for him to get some pictures of Lyle's field experiments. For five seasons Lyle had been investigating duck-nesting areas, and he had discovered that not only do hens return to the same nesting regions and even the same cover, year after year, but that some of the young birds will come back to the region of familiarity. He was also studying the way female ducks behave when their eggs and nests are destroyed. Waterfowl reproduction cannot be appraised until answers are found to questions like these.

Lyle had invented a long-handled net with which he could capture a hen on her nest, and also a trap which held the bird without harming her. After capture, he would mark her wing with a bright airplane paint which dried quickly, so that he would recognize her as a certain individual when he saw her later. Any ornithologist who hadn't been warned would certainly get a shock when he tried to identify these ducks, flying about with sky-blue or rose-red wings!

Breck made valiant efforts to photograph the capture of the hen and the wing marking and I certainly admired his extraordinary patience with the black rainclouds, which persisted in shutting off all light just when Lyle was in the act of brushing the bird with vivid yellow.

After watching these thwarted activities for a time, I decided to walk back to Delta. I must have been kept too often from walking in the rain, when I was little; I always have such a delighted feeling, guilty but triumphant, when I do it now. This morning was no exception and my spirits rose higher and higher. It was so exhilarating to walk along the road above the level of the marsh, with ducks flying up and terns crying overhead. Here and there in the canals small wooden platforms were floating, for it has been found that the ducks are more likely to nest along the road (where the scientists can observe them) if loafing places are furnished nearby.

The wind blew my coat in sudden gusts, the rain pattered lightly on my beret. A yellowthroat's *witch-i-tee, witch-i-tee* cheered me on, and I heard a Western meadowlark for the first time. I kept telling myself, "I'm really back at Delta," as I looked with affection at the spangled heads of marshgrass and the circles the raindrops were making in the ditch water.

One evening on the tower Al and the students spent their time tossing blindfolded blackbirds in the air. Al wanted to find out if the birds could orient themselves when they could not see where they were going. Being a kind-hearted experimentalist, however, he made the blindfolds of paper so the birds were soon free of them.

The main purpose of all this experimenting and field study is to make sure of an increasing game supply for the future. As the Research Station's *Purpose* states, "North American waterfowl are a great renewable natural resource. The future of this migratory game will be measured by the degree to which populations are renewed . . . Delta Waterfowl Research Station is dedicated to increasing this vital element of renewability; it has sought to eliminate guess work and supplant hit-and-miss thinking with scientific truths."

Delta is pioneering in unknown fields of investigation. It isn't possible to list all the station's findings, but here are a few examples.

It was at Delta that the co-operative survey team developed the new technique for taking a census of the wildfowl on breeding grounds. So accurate is this work that two biologists in separate surveys over the same area will tabulate the same number of birds per square mile.

Dr. William Elder of the University of Missouri has studied the incidence of lead shot in live ducks as an index to gunning pressure. In 1949, using a fluoroscope screen to detect shot, he examined more than 4000 ducks.

In the field studies, basic concepts are often radically changed. For instance, the large marsh was supposed to be the principal duck-producing area, but it was proved that this is not the case and that one of the main objectives should be to save the breeding waters on farmlands. In some parts of agricultural Manitoba the sloughs and potholes produce more ducks per square mile than do the larger marshes.

It was found that young redheads and canvasbacks were too easily killed off during early-season shooting and these species seemed to be disappearing. Sportsmen became interested in this and since the shooting has been delayed and the young ducks allowed a breathing space until they could get strong on the wing, there has been a marked increase in Delta canvasbacks and redheads.

The work done here has become more and more important until now Delta is recognized and relied on by authorities as a centre of investigation. It prevents duplication of efforts which would be unavoidable without such a centre. Since 1945 biologists from the Dominion Wildlife Service, the Manitoba Game and Fisheries Branch, the United States Fish and Wildlife Service, the Universities of Manitoba, Missouri, Minnesota and Wisconsin, the National Resource Council of Canada and the Manitoba Museum have studied here. There are weekly seminars at which each visitor becomes acquainted with the work of other members.

While Delta is the headquarters, there are other study regions for special programs. To the west is the Minnedosa pothole country, the Libau marsh and the Whitewater Lake area. With the Fish and Wildlife Service providing facilities for flying, regular studies of the waterfowl population are made possible over breeding marshes that are widely separated.

Just after our arrival, Arthur Hawkins came back from a trip by plane to Eskimo Point, on Hudson Bay where he had discovered a new nesting ground of the snow geese. This was exciting news for the breeding grounds of those geese were for so long a mystery.

Not only scientists are attracted, but people interested in wildfowl for widely different reasons. Peter Scott, England's most famous wildfowl artist, has become fascinated with the Delta project and has painted many of his pictures here. Besides his painting, he is the director of the Severn Wildfowl Trust in England and when he says, "This research that the Delta Station is doing is the only work of its kind being done in the world; we hope in due course to be doing the same sort of job in Europe," there could hardly be higher praise.

Colonel Niall Rankin, of the Isle of Mull, who is a noted ornithologist and a fine bird-photographer, (he has taken outstanding penguin pictures in the Antarctic) is also a recurring visitor. Famed for his writings on the marshbirds and especially on the grebe he has pursued this

study at Delta and has taken off from there to pursue ducks in Alaska. Richard Bishop has found material for wildfowl paintings and Edgar Queeny has gathered photographs, as have Martin Bovey and William Carrick.

Our last day at Delta dawned clear and bright, a perfect midsummer's morning. Al came in beaming while we were all having breakfast. He had felt personally responsible for the inhospitable weather and for the fact that Breck couldn't take pictures, and we couldn't get out in the canoe. "I opened one eye just a trifle this morning," he said, "If it had been raining again I wasn't going to show up all day."

As soon as breakfast was over, Lee and I started off in the canoe. It was a glorious feeling to get out into the marsh after all; I packed into that morning's canoeing all the joy I could have felt in a week of it.

Here was our immense and open land again. Simplicity itself—long ripples of blue water, great stretches of yellow-green cane. Over us was blue infinity. There was a violet haze along the far horizon where low trees hid Lake Manitoba, and just enough wind to sway very slightly the tules and the cattails. What a delight to see again the smooth curving of bulrush stems and watch their narrow reflections zigzag in the water!

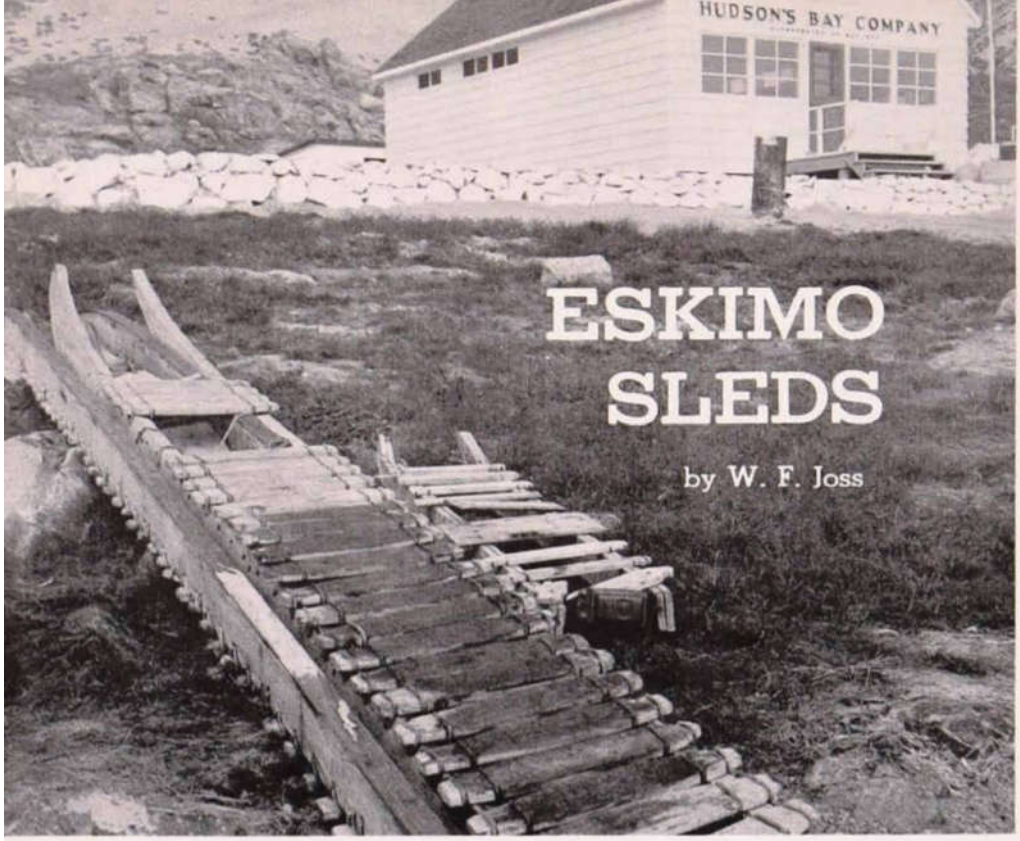
It was a dreamy morning. There was no hubbub such as we had heard in the springtime marsh, only the bubbling songs of marsh wrens and now and then the strange cry of a rail. And now there were no wild courtship flights of canvasback and redhead, no great white swans flying against the clouds, no rafts of Canada geese; the marsh life is secret in midsummer. Local flocks would gather in August, but not till fall would long lines drift across the horizon from the north, and turning flocks drop into pale gold reeds.

Now only a few ducks flew up as we floated along, though there were plenty of coots to fall over themselves as they scrambled through the broken cattails ahead of us, while their grotesque babies wobbled on immense feet after them. A yellow throat darted by now and then, so much brighter than the yellow-headed blackbirds, whose once brilliant gold had faded to almost buff.

We caught sight of a minute black duckling swimming all by himself through the tall phragmites, and as a contrast to him three pelicans came flying solemnly over our heads. The last time I had seen the great white pelicans on this marsh we had been in a plane with Bob Smith and had looked down on them; now the positions were reversed.

Once more I caught sight of my small ruddy ducks, and my heart went out to them just as it had four years before. There they were, just as absurd as ever, with their skyblue bills so close to their stick-up tails! Just as energetic, as they steamed along chuckling and spreading their tails in the courtship display that all more sedate ducks had forgotten about by June! What did I care that the wild swans had left and I had missed seeing the marsh deer? Here were my ruddies and I was afloat in a canoe on the Delta marsh.

Pintails on the beach.



ESKIMO SLEDS

by W. F. Joss

For rough and tough travelling in the Arctic, nothing can beat the old mud sled.

Sleds of the Eastern Arctic are characterized by closely spaced cross bars. They are also more neatly made than those of the Western Arctic, probably because all wood has to be imported into the East, and therefore is better finished than the rough hewn wood of the West. Herman P. Dean

FROM the Mackenzie Delta to the Atlantic Coast, the Eskimos of Canada depend almost entirely for their winter transportation on the wooden sled. This sled—or *komatik* as they call it—consists simply of two heavy runners about a foot and a half apart, joined by cross pieces lashed to the runners.

The typical Eskimo family usually owns three of these sleds: a long, strongly built model, for moving heavy loads, a shorter lighter model for trapping, and a small one for racing or for the children.

When an Eskimo of the Western Arctic needs a sled there are three means by which he can procure one. He can go inland to the timber which is only sixty to one hundred miles from the coast; he can search the beaches in the springtime after the snow has melted for a log large enough for a sled; or he can buy sled-planks from the trading posts in the district.

The easiest and most economical method is the finding of driftwood. This driftwood is carried down to the sea by the Mackenzie River. Winds and currents scatter it on the beaches from Aklavik to Cambridge Bay. Several species—birch, poplar, and spruce—are found, but it is only the spruce which is used for the sled-boards.

Whether the Eskimo travels inland to chop down a spruce tree, or finds a large spruce log on the beach, the labour of building a komatik is the same from then on. If it is to be the long type, the length is usually between sixteen and twenty feet. The boards are twelve inches deep and from two and a half to three and a half inches wide. Hewing these trees or logs with nothing more than a three pound axe and a small hand saw is time-consuming work, and is often left for the slack hunting season in late spring or early fall.

After the two planks are cut out they are planed smooth to the desired thickness and nailed together with two or three nails as the shaping of both boards now proceeds at the same time. It is at this stage that the experienced builder shows his superior skill, for a komatik is not just two planks with so many cross pieces like a ladder. It has to run easily, steer easily, and yet be strong enough to carry weights up to one ton and more.

No two sleds are alike in construction and many different factors enter into the making and building. Some are built for travel on land, some for smooth sea ice, and others for rough ice; but regardless of the width, weight and design, the forming of the running edges is the most important part of sled-building.

The bow of the sled actually starts at the middle of the running edge and is gradually tapered to a blunt point. There is also a slight curve from the middle to the stern. The whole length of the runner is a curve and it is the shape of this curve which determines the running qualities of the sled.

The shaping of the runners being completed, the boards are left nailed together and holes are drilled through both planks. These holes are usually half an inch in diameter drilled from one to two inches from the top edge of the boards and twelve inches apart.

Two main cross pieces are then made—one for the bow and one for the stern. After these are lashed in place the

remaining cross pieces are fitted. The lashings can be of caribou skin, or seal skin, but as the dogs are fond of these rawhides a number 120 cotton line is a good substitute. The width of the sled between the runners depends on the length of the two main cross pieces—these are usually twenty inches for the bow and twenty-one for the stern.

The sled is now complete except for the actual runners. In the fall when there is not much snow on the land and the salt water ice is still wet, steel is used. When below zero temperatures set in, the steel is removed and the sled is mudded. Mud runners are generally used by Eskimos throughout the whole Arctic, and for most travelling conditions are superior to any other type.

The mud is chopped out of the ground with an axe, after first being tested for sand and small stones. The Eskimo makes this test by grinding between his teeth a small piece of the mud. If it contains sand or grit another location is sought. To mud an eighteen foot sled about one hundred pounds of mud is required. The mud is thawed out in a tub. Water is added if it is too dry, and squeezed out if it is too wet. The earthy, peaty mixture is loosened up and teased out by hand and made up into balls four or five inches in diameter. The mud-balls are then pressed and spread on the runner, each ball covering from six to eight inches of the runner. Starting at the bow the whole length of both runners is covered in this fashion.

In a few hours the mud has frozen firmly to the runners. It is then planed smooth. This mud forms the base to which a coating of ice is applied with a piece of bear skin. These mud runners will stand considerable pounding but now and again when travelling over rough or glare ice, pieces may break off. Sometimes the broken pieces are recovered, thawed out and the runner patched. If the pieces are lost a substitute patch can be made with rolled oats or flour. With a daily coating of ice the mud runners are good from November till May. Before applying a new coating of ice any old ice which is adhering to the runners is scraped off.

A mouthful of water is squirted on to the bearskin mitt and the mitt is rapidly applied from one end of the runner to the other. The water being taken into the mouth first assures the proper temperature for if the water is too cold the ice coating will be white and white ice causes too much friction. If the water is too hot the top of the mud will thaw and spoil the polar bear icing mitt. The polar bear skin is used because the hair is oily and does not absorb water, and so is easily dried. The water for icing is melted snow, and the snow which makes the best clear hard ice is the old granulated snow found close to the ground.

When the warm weather begins the mud runners melt and drop off. The Eskimo has now a choice of whalebone or steel. The whalebone is better than steel but very scarce. Brass and aluminium are also superior to steel but are expensive and like whalebone are easily spoiled by scoring on rocks. Steel is generally used—two and a half inches wide for travelling on snow and one and a half inches for travelling on ice after the snow melts.

The longest sleds weigh about three hundred pounds and are used for hauling heavy loads of caribou and seal

Utagaok, a Western Arctic Eskimo, fashions a sled runner from a green spruce tree. J. H. Webster

or when the Eskimo decides to move his home camp to a different part of the country. Eleven to seventeen dogs are used to keep this load moving.

The trapping sled is very similar to the long type. Besides being lighter and shorter the shoeing is made of iron-bark, an Australian wood obtained from the trading post. With a light load these runners hold the ice coating almost as well as mud, and if the iron-bark is allowed to

Repairing the lashing of a komatik. Note the rough, widely separated cross bars of the Western Arctic sled. J. H. Webster

When the frozen mud is thawed out it is rolled into balls and moulded into shoeing for the runners. W. F. Joss

soak in a shallow fresh water lake all summer till the wood becomes waterlogged they will require very little icing all winter.

The iron-bark runners are attached to the sled with two-and-a-half-inch screws. During long sled journeys lasting many months, like those made by missionaries and the R.C.M.P., iron-bark is often used under the mud. Sometimes for added safety, the steel shoeing is left on the runner—the iron-bark is screwed on over the steel and the whole runner mudded. When the mud is badly damaged due to rough ice, glare ice, or rocks, and when it is impracticable to repair the shoeing, all the mud is broken off with an axe. The iron-bark runner is then given an ice coating and the journey continues. When the temperature is too high for icing the iron-bark is taken off and the steel used.

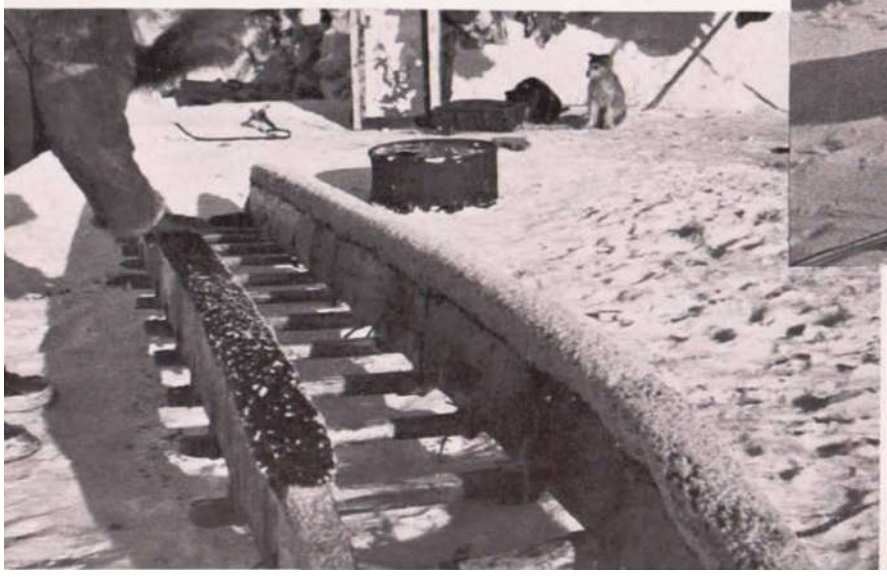
The third sled or racing model is a miniature of the trapping sled. It is not more than six feet long and sometimes only four. Shoeing is again mud or iron-bark. Used with five to seven dogs it gives its passenger a spine jolting ride, even when the three or four cross pieces are covered with heavy deerskin. The Eskimos use many of these small sleds for racing at Christmas, New Year's and Easter. Distances of fifty miles have been covered in five hours. When they are not being used for racing the Eskimo children play with them constantly.

Though they vary in size, these three types of sled are all basically similar in design. Basket sleds and toboggans have been tried, but they will not take the hard pounding and rough use that the Eskimo komatik must undergo. Unlike his other equipment, the Eskimo's sled remains unchanged. For centuries no new models have been invented; the shape is the same, the mud runners are the same. The dogs still chew the lashings, and the cross pieces still break; but for rough and tough travelling there is nothing to beat the old mud sled.

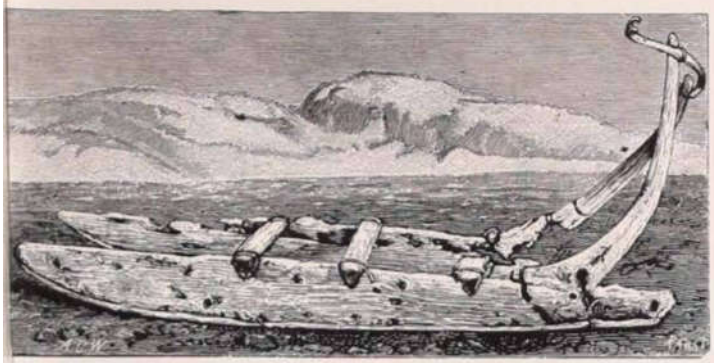
HISTORICAL NOTE

One of the earliest descriptions of Eskimo sleds—or part of them—was that written by Captain Luke Foxe, who saw the runners of some at Cape Fullerton in the northwest corner of Hudson Bay, 320 years ago. These runners were used as coverings for Eskimo graves. The natives "lay the Corpes upon the stones," says Foxe, "and wall them about with the same, coffining them also by laying the sides of old sleddes above, which have been artificially made. The boards are some 9 or 10 foot long, 4 inches thicke. In what manner the tree they have bin made out of was cloven or sawen, it was so smooth as we could not discerne, the burials had been so old."

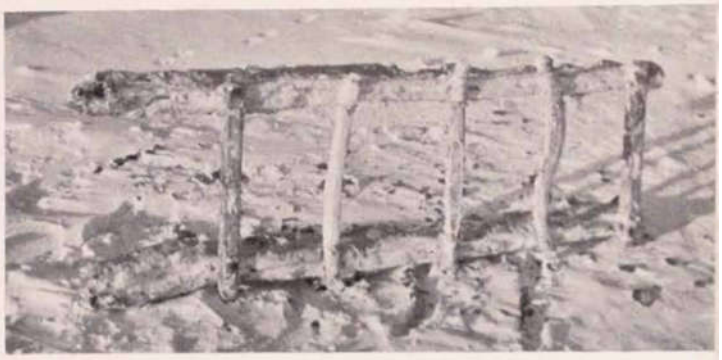
Nearly two hundred years later, John Ross met some Eskimos in Lord Mayor Bay, Boothia Peninsula (*Beaver* Sept. 1948, p. 10). "Their sledges were singularly rude;"



Left: the mud shoeing on one runner is finished and starting to freeze. The other is still soft. Above: applying a new coat of ice with a polar bear skin mitt. Note the break in the shoeing of the left hand runner, and the windbreak for the Primus used to melt the snow.
W. F. Joss and Wm. Gibson



Ancient Eskimo sled with caribou-antler handles found at C. Baird (Lat. 81½ N.) by Greeley in 1881.



Temporary sled made of folded and frozen caribou hides and wooden cross bars, 1943. J. H. Webster

writes Ross, "the sides consisting of pieces of bone tied round and enclosed by a skin, and the cross bars on top being made of the forelegs of a deer. One of them was but two feet long, and fourteen inches wide, the others were between three and four feet in length. On the under part of the runner, there was a coating of ice attached to the skin, rendering their motion very easy."

The resourceful natives of the Arctic have indeed turned to all sorts of material besides wood, with which to make temporary sleds. The frozen hides shown in Canon Webster's photo were sometimes padded out with raw fish or meat, and at the end of the journey, the sled dogs could eat the runners while the drivers feasted upon the contents. C. H. J. Winter of the H B C fur trade saw an old Eskimo arrive at Chesterfield Inlet in 1929 with a komatik made mostly of ice. He had lost his wooden sled on the way from Repulse Bay, and had fashioned a makeshift one out of the materials nearest to hand. The runners were about a foot deep and about sixteen feet long, made up of blocks of ice some four feet long frozen together. The cross pieces, consisting of such articles as frozen fish, bones, wooden clothes beaters, etc., were simply frozen into the top of the runners. Cracks appearing in the runners were sealed by the application of water. Both Klutschak and Boas also saw sleds made of ice in the Central Arctic during the 1880's.

That the Eskimos have developed the most efficient type of sled for Arctic travel is evident from tests carried out recently by the National Research Council at Ottawa. In 1947 the R.C.M.P. asked the council if they could design a sled that would eliminate the need for coating the runners with mud and ice. After much research and many trials, the scientists emerged with something very similar to the komatik in shape, but with a smooth ⅛" bakelite sheet running all along the sled under the cross bars, which would act as a toboggan in soft snow. The sides of the wooden runners were surfaced with ⅛" bakelite, and the shoeing was of the same material, channelled so as to fit onto the runners. Nylon parachute cord was used for lashing, partly because it does not stretch nor shrink, and partly because dogs won't eat it. This experimental sled was used by the R.C.M.P. at Baker Lake in March 1948, and proved among other things that bakelite makes an excellent shoeing material.

Komatik of wood and bakelite made for R.C.M.P. by National Research Council, Ottawa. (See above.)

John Blanchard, pack-board maker, Lower Post, B.C.

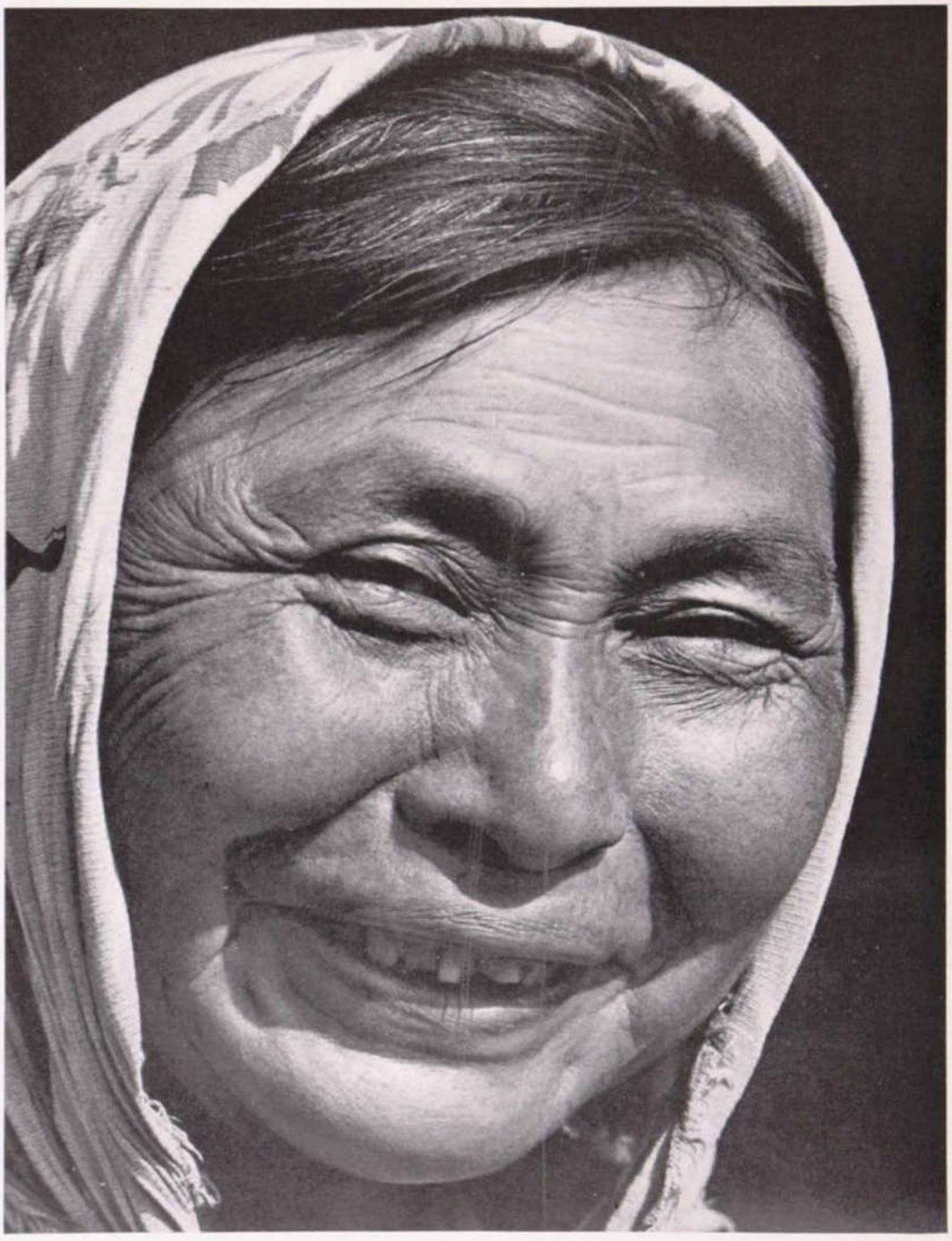
Skipper Walter Johnson and Engineer Aubrey Griswold of H B C vessel "Stuart Lake" at Fort Nelson, B.C.

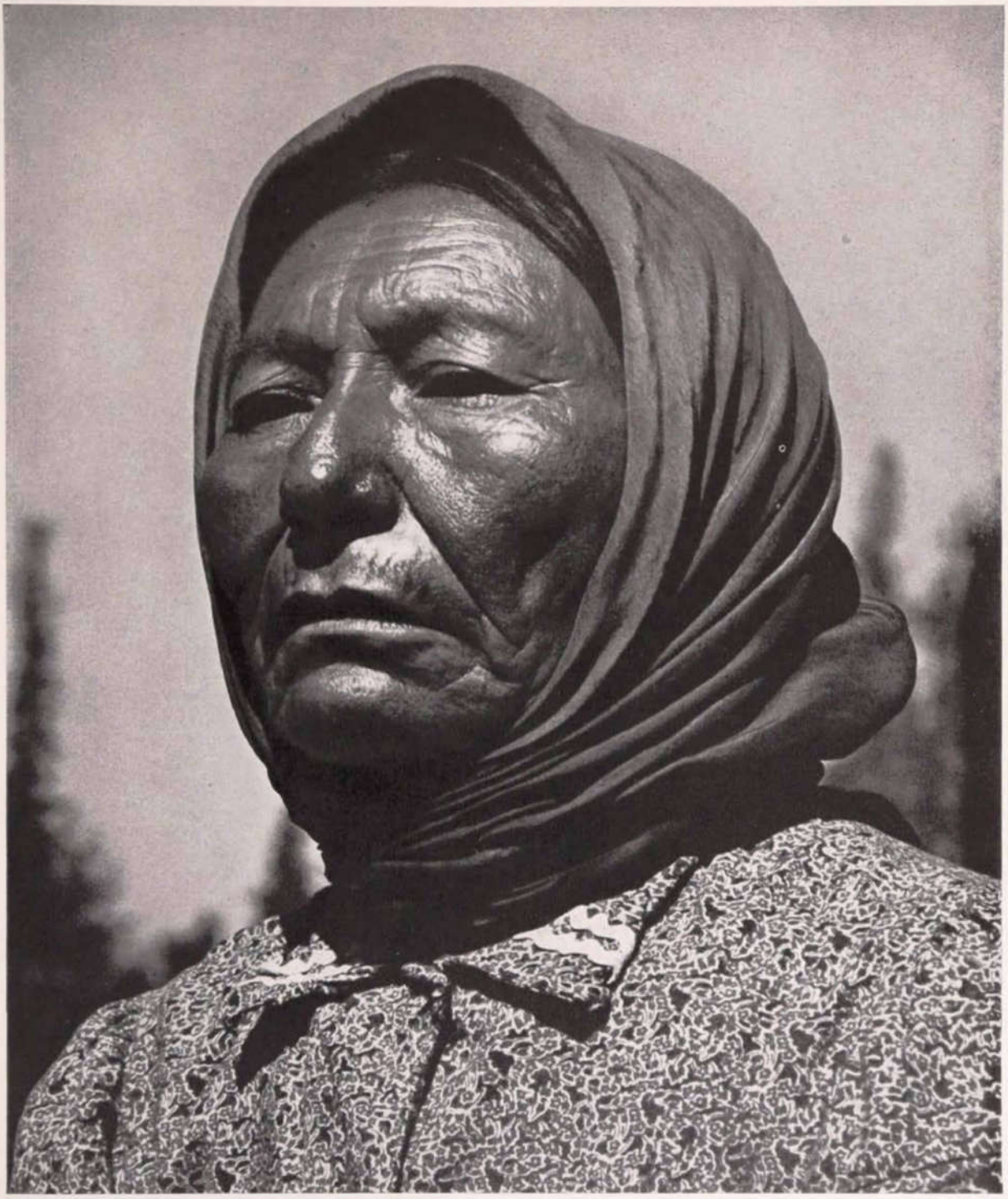
NORTHERN PORTRAITS

Photographic studies made along the Alaska Highway.

by Richard Harrington

Tagish Indian woman, Kluane Lake, Yukon Territory.





Slave Indian Woman, Snake River, near Fort Nelson.

Conflict On Puget Sound

by John S. Galbraith

At Fort Nisqually, main base of the Puget's Sound Agricultural Company, large herds of sheep and cattle were raised. B.C. Archives

An American university professor writes of the friction between the Company men at Nisqually and the incoming American settlers, a century ago.

IN comparison with the record of its parent organization—the Hudson's Bay Company—that of the Puget's Sound Agricultural Company appears most unimpressive. Though its capitalization was £200,000, most of its stock was never paid up; its anaemic existence was short and painful, both to its employees and to its stockholders, who experienced a famine in dividends; and it failed in its objective of safeguarding British interests north of the Columbia River. This record of failure might seem to justify the lack of interest of historians in the company's activities. But ledgers and balance sheets are a most unreliable index of historical significance, and failure can be as important as success. The Puget's Sound Company establishments, together with the Hudson's Bay Company's trading posts, constituted the most effective British claim to sovereignty north of the Columbia River, a "beach-head" which might have been made a formidable barrier to American expansion had the British government provided the Hudson's Bay Company with aggressive support.

The Puget's Sound Agricultural Company maintained two centres of operations: Fort Nisqually, the headquarters, at the southern end of Puget Sound, and Cowlitz Farm, on a tributary of the Columbia. The Company was established to serve a dual purpose: (*a*) It would provide the fur-trading posts along the Pacific Coast with such necessary staples as wheat, cheese, and meat, while the parent company confined itself to its fur business—thus avoiding objection of those proprietors who felt that the Hudson's Bay Company should not engage in stock-raising and farming; and, (*b*) by the settlement of land in the course of its pastoral and agricultural activities, it would reinforce the British claim to the territory north of the Columbia.

In 1838, five years before the arrival of the first great wave of American settlers, the Hudson's Bay Company, in requesting the renewal of its lease of 1821, asked for increased powers to promote settlement in order to strengthen British claims in the Oregon territory. Governor John Henry Pelly reminded the Colonial Office that the Company was serving a national as well as a private interest in Oregon, and voiced the expectation that with enlarged powers the Company would render British influence dominant "in this interesting part of the world." George Simpson, in another letter in support of the petition, stated: "The Possession of that country to Great Britain may become an object of very great importance, and we are strengthening that claim to it . . . by forming the nucleus of a colony through the establishment of farms and the settlement of some of our retired officers and servants as agriculturists."

The Colonial Office, however, refused to grant the Company additional authority, apparently because such sanction might be interpreted as a violation of the conventions of 1818 and 1827, which the British government

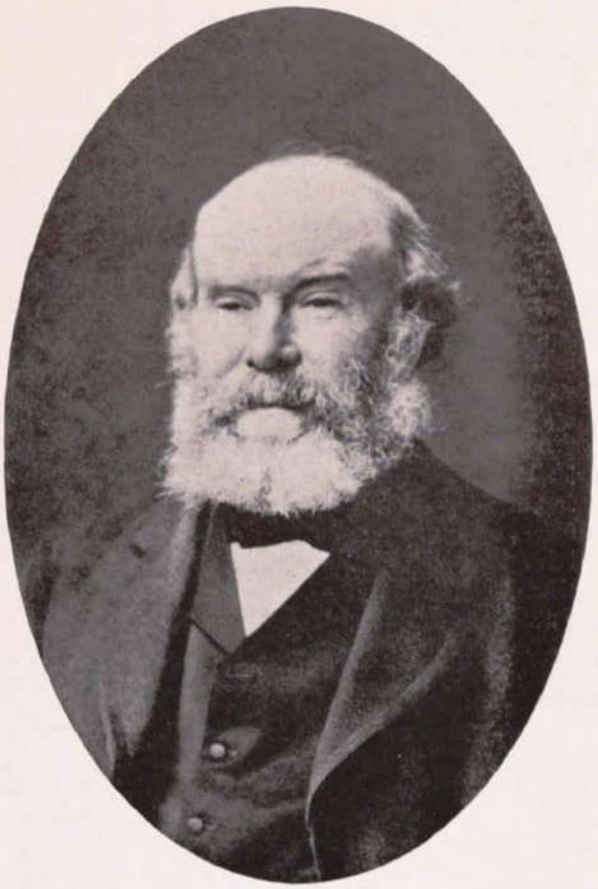
was not prepared to denounce. The license was, therefore, renewed without change for another period of twenty-one years.

Rebuffed by the British government, the Company now resolved upon the expedient of creating a subsidiary organization, the Puget's Sound Agricultural Company. As a joint-stock enterprise, it came into being in 1840, with an authorized capital of £200,000 in £100 shares. Although the stock of the Puget's Sound Company was to be separate from that of its parent, control was vested in the Hudson's Bay Company, John Henry Pelly, Andrew Colville, the Deputy Governor, and George Simpson being appointed directors. Arrangements were made for the purchase from the Hudson's Bay Company of all its sheep, cattle, and horses in the area of operations of the Agricultural Company.

Fort Nisqually was selected as the main base of the new company and Dr. William F. Tolmie was appointed Chief Trader, under the general supervision of Chief Factor John McLoughlin. Nisqually had been established in 1833 by Archibald McDonald, who conceived that it possessed "an advantage over all the other settlements we have made on this coast" in trading with the Indians, who inhabited the numerous bays and inlets of Puget Sound. The advantage of the fort as a supply base soon became evident, and fur-trading became a subsidiary occupation. Through the protected waters of Admiralty Inlet, the Gulf of Georgia, and Puget Sound, ships could proceed safely between the Oregon territory and Alaska, and the broad, gently-rolling plains on which the fort was located could accommodate the cattle, sheep, and hogs needed for provisioning Pacific Coast stations.

Cowlitz Farm to the south was well suited to pastoral pursuits, and the soil, more fertile than that at Nisqually, offered prospects of grain cultivation. Even before the creation of the Puget's Sound Company, therefore, the Hudson's Bay Company had made Nisqually the principal depot for provisioning vessels in the trade along the north-west coast, and with the full energy of the new company being devoted to agriculture and stock-raising, there seemed to be a sound basis for hopes of lucrative profits.

This section of a map of 1857 shows the location of the two chief establishments of the Puget's Sound Co.—Fort Nisqually and Cowlitz Farm.



Chief Trader Wm. F. Tolmie conducted the Company's side of the negotiations with admirable wisdom and patience. This portrait was taken in 1874, when he was 62.

In 1845, 5872 sheep, 2280 cattle, and 228 horses were pastured on the Nisqually plains. The sheep included some which had been brought overland and by ship by the Hudson's Bay Company from the Mexican settlements in California, but by 1845 the flock included a large proportion of Merino, Southdown, Cheviot, and Leicester imported from England. The cattle, also from California, were dominantly of the breed called "Spanish cattle," with an infusion of some of the best English meat breeds. The rugged qualities of the Spanish animals dominated over milder English traits, however, and at the time of the transfer of herds to Nisqually in 1841, they were not well-suited to domestic use. Their slim, hardy frames provided little meat, and they were poor milkers, but their deficiencies were compensated for by one outstanding virtue —they were unusually prolific. Lieutenants Warre and Vavasour, sent by the British government to assess the

relative strength of the Americans and British in Oregon, commented in 1845 on the seeming prosperity of the Nisqually station.

Had the Company been left undisturbed, optimistic hopes as to its prospective profits might well have proved justified, but the times were unpropitious. The first large groups of American settlers reached the Oregon country in 1842 and 1843, and in 1845 the vanguard of the Americans arrived on Puget Sound. During the ensuing years, the lands of the Puget's Sound Company were exposed to increasing encroachments of American settlers, and it became evident to both management and servants that, barring British success in the treaty negotiations, the Company was condemned to a short, unprofitable existence. The diplomatic victory of the United States in the Oregon treaty of 1846 was the death warrant for the Hudson's Bay and Puget's Sound Companies south of the forty-ninth parallel, despite the "guarantee" that "the farms, lands, and other property of every description belonging to the Puget's Sound Agricultural Company, on the north side of the Columbia River, shall be confirmed to the said company," and a provision that in the navigation of the Columbia River, "British subjects, with their goods and produce, shall be treated on the same footing as citizens of the United States."

The performance of American obligations, however, in the last analysis rested not on the government in Washington but upon the willingness of the settlers to respect the rights of the British companies or, barring that, on the determination of federal officers in the territory to protect the holdings of the companies. Neither condition was realized. The settlers regarded the companies as iniquitous organizations which must be ousted immediately from American soil, treaty guarantees notwithstanding, and local governmental officials did not conceal their sympathy with their countrymen. The Puget's Sound Agricultural Company after 1846 was, therefore, in much the same position as a beleaguered garrison, but a garrison without effective weapons. The policy of the Company after 1846 was to register formal protests against encroachments as a basis for future claims against the United States; in the words of Chief Factor James Douglas, to "warn off all new comers, in a pleasant way, and keep always on the right side of the law."

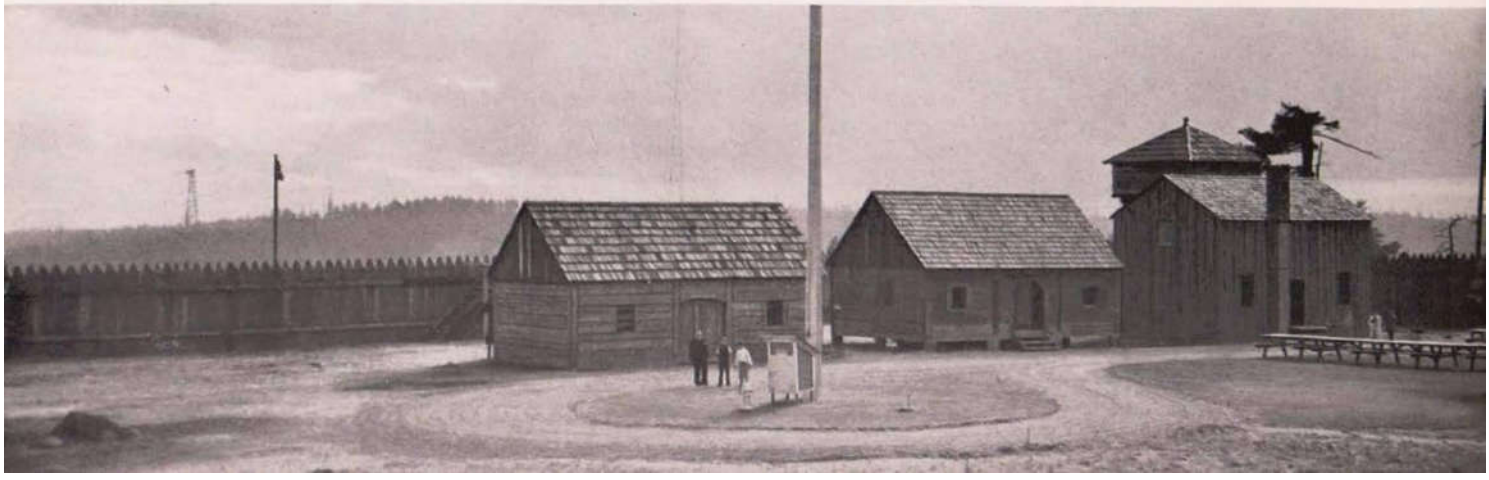
The man upon whom this responsibility rested was William Fraser Tolmie, chief trader at Fort Nisqually, and the son-in-law of John Work. Despite the inadequate resources at his disposal, he conducted a masterly defense of the Company's interest. A native of Inverness, Scotland, he had entered the service of the Hudson's Bay Company as a physician in 1832, arriving at Fort Vancouver in the spring of 1833. Before his appointment to the management of Nisqually in 1843, he had served the Company at various posts in the dual capacity of physician and trader. In 1840 he was assigned the duty of establishing cattle and dairy farms in the Oregon territory, an experience which prepared him for his duties at Nisqually. The historian Hubert Howe Bancroft describes Tolmie in his later years as "rather below medium height, broad-shouldered and stout, with a large round head partially bald, high forehead, coarse features, round deep-set eyes glittering from under shaggy brows, large round ruby nose; in intellect shrewd rather than lofty, in temper hot and unforgiving, and yet a man warm in his friendships, devoted to his family, honest in his dealings, a good Christian barring occasional oaths, and a patriotic citizen, especially where patriotism was profitable." This not entirely complimentary description seems to miss one important aspect of Tolmie's character which was to enable him to endure the vexations of sixteen years in the midst of a hostile community—an amazing capacity to endure irritations with calmness and courage, which won him the reluctant admiration of his most hostile critics.

Until 1850 the relationship between the Puget's Sound Company's establishments and the Americans was dominantly amicable. The general store at Nisqually provided the settlers with commodities at reasonable prices, and a mutually advantageous trade in barter was carried on. The following agreement is typical of many:

> Mr. Thomas W. Glasgow is to deliver to Wm. F. Tolmie at store Nisqually Landing 250 bushels good potatoes for which W. F. Tolmie is thereafter to pay Mr. Glasgow four tame cows with their calves and six wild cows with their calves, all the calves to be heifers if a sufficient number can be collected on the day of delivery and all of the cows to be of average quality. Mr. Glasgow to assist with one mounted Indian in collecting the cattle and W. F. Tolmie to assist Mr. Glasgow with 2 or 3 horsemen in driving the cattle to Steilacoom.

Even during this brief period of relative harmony, however, Nisqually and Cowlitz were in conflict with settlers who claimed the Company's lands or stole its cattle and

Part of the restored Fort Nisqually, now in Point Defiance Park, Tacoma. The centre building is the original granary of 1843, oldest structure in the state of Washington. A. L. Gehri



One of the bastions of restored Fort Nisqually. (See "Beaver" Sept. 1934 and Sept. 1940.) A. L. Gehri

sheep. The first squatters appeared in 1847 and by 1849 encroachments had become serious, ten Americans occupying land claimed by the Company. Tolmie, in accordance with his instructions to "warn off all new comers in a pleasant way," first made oral protests and then, when these failed, presented each squatter with a written notice, copies of which were carefully filed for future use in the event of claims for damages against the United States. The restraining effect of these notices on the settlers may be gauged by the fact that in 1851, there were twenty-eight alleged trespassers on the land of the Company, all duly presented with written notices, and in 1853, there were fifty. In an effort to preserve the outlying districts against encroachments, Tolmie drew up agreements with employees and retired servants of the Company by which land was assigned to them with the provision that it

revert to the Company on their deaths. This deceitful attempt to deny to the settlers the benefits of Providence and American citizenship evoked the anger of the Americans, and at a meeting in New Market devoted to condemnations of the Hudson's Bay and Puget's Sound Companies, Tolmie was singled out for special attention. The gathering resolved:

> 2nd. That we hold the conduct of Wm. F. Tolmie, chief servant of the Hudson's Bay Co. at Nisqually as highly censurable, in attempting to prevent American settlers from locating their claims on certain lands that he, the said Tolmie, pretended to claim by certain reservations made in the treaty of boundary between the United States and Great Britain, in favor of the Puget's Sound Agricultural Society—when he well knows that no reservation exists; and the direct acts or assumptions of power are only equalled by the base subterfuge in attempting to hold other large tracts of land by an apparent acquiescence in the provisions of the Organic Law of this territory. . . .

The squatters made clear that any effort to remove them would be met with violence, and Tolmie and his associates, aware that the Company would find no redress in the courts, made no attempt to oust them. The difficulties with which the Company was confronted are illustrated by the following incident reported by Edward Huggins, in charge of Muck Farm:

> On Saturday last, the 1st May 1852, a party composed of Mr. J. B. Chapman, a citizen of America and residing at Steilacoom City, P. Sound, O. T., H. Barnes, E. Dean and Myself, Englishmen in the employ of the P.S.A. Company at Nisqually, were set upon by a Company of Men (Squatters on the Company's lands) armed with double barrelled Guns & Pistols. They desired to know what authority we had for running a line around their claims, and said that they had come with the determination of stopping our procceedings, whereupon one of them a Mr. Smith Very fiercely drew a Stake which we had just driven in the Ground, and hurled it a long distance off. They were very much embittered against Mr. Chapman, the Surveyor and told him if he would insist in proceeding with the Survey they would break his Compass and otherwise injure him. Mr. Chapman was compelled to discontinue the Survey.

Tolmie, with no power to take effective action, in 1855 appealed for instructions from the directors of the Hudson's Bay Company, who replied that he should avoid pressing for legal action "unless there is every possibility of a verdict being given in favour of the Company." The basis for this advice was the hope the United States would soon buy the Company's property. This hope was based on President Pierce's recommendation to Congress that an amicable settlement be reached on the claims of the two companies, but no action was taken, and Tolmie was forced to continue to rely upon ineffectual protests.

The position of the Companies was made more difficult by the outbreak of Indian wars in 1855, directed against the settlers, in which Tolmie and other employees of the companies were suspected of complicity with the Indians, apparently on no more solid basis than the fact that they appeared to exert undue influence over the tribes, with whom they had lived in harmony before the arrival of the farmers. Tolmie was also involved in a notable clash with the United States customs authorities at Olympia, as a result of the seizure on December 1, 1851, of the *Mary Dare* and the *Beaver* with cargo destined for Nisqually, for a technical violation of the revenue laws. In this case, Tolmie won one of his few victories, for not only were the vessels released but the United States Secretary of the Treasury paid $20,000 damages in compensation for an overly rigorous interpretation of the revenue laws.

Profitable enterprise was made virtually impossible by the levies of the tax assessor. American views of the value of the property around Fort Nisqually varied widely. When a reasonable purchase price for sale to the United States government was the subject of attention, the land was estimated to be worth from one dollar to three dollars per acre. The newly organized territorial legislature of Washington in 1854 requested Congress to purchase the property since the lands were now less valuable than in a state of nature and buildings had decayed into worthlessness. Yet officials assessing the properties for taxation purposes found them valuable, as indicated by a levy on the lands of $6,725.62 in 1855. It is difficult to escape the conclusion that such levies were imposed, not only for revenue, but to hasten the departure of the British companies from American territory.

Tolmie and his associates, harassed by squatters, tax collectors, and revenue agents, found few attractions in life in the territory of Washington, and Tolmie must have departed for Vancouver Island in 1859 with few regrets. His elevation to a position on the Board of Management of the Western Department of the Hudson's Bay Company was in recognition of the fact that he had performed his duties faithfully and intelligently under impossible conditions.

The apparently ineffectual protests against American encroachments were not entirely without success. In 1863, the United States and Great Britain concluded a treaty for the final settlement of the Oregon claims of the Hudson's Bay and Puget's Sound Companies, and in the hearings that followed Tolmie's meticulous accounts of losses of land and livestock were introduced as evidence. When the Joint Commission on September 10, 1869, awarded the Puget's Sound Agricultural Company $200,000 for its properties south of the forty-ninth parallel, Tolmie and his fellow servants could claim much of the credit.

Despite this award, the Puget's Sound Agricultural Company was not a profitable undertaking. Only 1340 of its 2000 shares were ever sold, and dividends on the remainder were small and infrequent. It failed in its object of promoting British settlement in Oregon, for employees were lured away by easy terms for land ownership for American citizens. Of twenty-three families destined for Nisqually from Red River in 1841, only thirteen arrived, and most of these after a short stay departed for the Willamette Valley and other areas outside Company control. No further efforts were made to bring groups of settlers from British territory to Oregon.

The farmer again had triumphed over the trapper. The Hudson's Bay Company and its subsidiary had been driven from Oregon, and the optimistic hopes of the 1830's had turned to ashes. Those who weigh importance in terms of bigness and success will pass the Puget's Sound Agricultural Company by. But if intelligence, resourcefulness, and devotion to duty can be a measure of historical interest, the "lost cause" of William F. Tolmie and other loyal servants of the Company deserves to be rescued from the limbo of historical oblivion.

First Short-Wave in the Arctic—II

by Richard Finnie

ONE thing leads to another, and Commander Eugene F. McDonald, Jr.'s reminiscences in the December 1950 *Beaver* prompted by Frank Ellis's article, "First Flights in Canada's Arctic," prompt me in turn to offer a few comments.

Commander McDonald recalls the visit of the C.G.S. *Arctic* to Etah, North Greenland, in the summer of 1925 while the MacMillan-National Geographic Expedition was based there, and suggests that his vessel the *Peary* was the first to use short-wave radio in the Arctic.

The fact of the matter was, however, that the Canadian Government steamer *Arctic* had been equipped with short- and medium-wave radio transmitters and receivers the previous year, supplementing an old-time spark set, and this was the second voyage through the Eastern Canadian Arctic on which the new outfit had been used. True, there were bugs in it, for short-wave radio on board ship was still a novelty, but the chief reason for its silence at times was that it was dependent for power on the *Arctic's* generator. This was an antique, and it had enough difficulty keeping the lights going without supplying a radio transmitter as well. And when the ship was lying in the ice the whole power plant was usually shut down to conserve coal or to permit the making of repairs.

The "Inspector-General" referred to by Commander McDonald was George P. Mackenzie, former Gold Commissioner of the Yukon, who was the officer in charge of the expedition. His difference of opinion with Captain Bernier about going into Cumberland Sound had only to do with whether the vessel should proceed to Pangnirtung before or after more northerly outposts had been visited. An attempt was made to reach Pangnirtung during an early stage of the voyage, but when it was seen that much pack ice lay in the entrance of the Sound—and the *Arctic* got enmeshed for three weeks—that was left until later.

Meanwhile the *Arctic* took a run over to Etah, which was partly for the purpose of asking Commander Donald B. MacMillan and Commander Eugene F. McDonald why they were letting Lieut.-Commander Richard Byrd fly over Ellesmere Island, or if and why members of the MacMillan Expedition were collecting zoological or archaeological specimens over there, without first having applied to the Canadian Government for an exploration permit.

Members of the two expeditions exchanged visits between the *Arctic*, the *Peary*, and the *Bowdoin*, the latter being MacMillan's schooner. The Canadians were invited to attend a broadcast from the *Peary*, when several Eskimos beat drums and sang hunting songs after an announcer had blown a whistle in the microphone to simulate the sound of an Arctic blizzard howling outside.

On another occasion two radio operators from the *Arctic* were invited to inspect the *Peary's* radio room and listen to incoming signals. One of the pair, lacking sufficient practice to read Morse at a 20-word-per-minute rate without simultaneously writing it down, produced a notebook and copied a few random sentences. After returning to the *Arctic* he was astonished to learn that complaints had been made to Commander Mackenzie that one of his operators had violated the international rule of secrecy, by copying a message from the *Peary's* radio and walking off with it! Explanations and apologies were at once made and accepted.

And how do I happen to know all this? I was the radio operator who innocently copied the message.

On the 1925 Canadian Arctic Expedition, and on the one of the previous year, I served as an assistant to the commander and as relief operator. These were my first Arctic expeditions, when I was in my teens, and in order to become a member I learned the Morse code and familiarized myself with receiving and transmitting equipment sufficiently to qualify for a limited certificate.

In 1924 the chief operator aboard the *Arctic* was William Choat, of Toronto, who was an enthusiastic "ham." In 1925 he was succeeded by Robert M. Foster, a technician and operator borrowed from the Canadian Westinghouse Company in Montreal. Both were able and serious young men, and it is a matter of record that Bill Choat preceded Commander McDonald's boys by a year in using short-wave radio equipment on shipboard in the Arctic.

In mid-July 1924, while the *Arctic*—a 700-ton egg-shaped wooden vessel—was making her four-knot way northward by sail and steam, she was hit by a gale off the Coast of Labrador. Mighty waves washed over her, put out her fires and she was on the verge of foundering.

Before the boiler steam pressure subsided and stopped our generator, we sent out distress signals both by spark and short-wave. No vessels responded or came to the rescue, and by the grace of God we saved our ship and completed our mission.

But, as we discovered long afterward, our short-wave signals had penetrated as far south as Virginia, where an amateur operator picked them up and conscientiously forwarded our SOS to Ottawa, *by mail*!

International conference on board the "Arctic." L. to R.: Cmdr. G. P. Mackenzie, Cmdr. E. F. McDonald, Jr., Insp. Wilcox, R.C.M.P., Capt. J. E. Bernier. Dom. Govt.

Manowan post in Quebec was the headquarters for the party filming "Indian Canoemen" for the National Film Board.

FILMING THE NORTHLAND

Story and Pictures
by Stephen Greenlees

JEREMY Quitish and Joe Petchigwee were the centre of attention when the movie camera was rolling, but the other Indians were not jealous. They had discovered that an actor's life is not an easy one. Take, for instance, the making of the rapids-running sequence. We had shot it at the headwaters of the Lièvre River just west of Lac Culotte the previous day. While the others sat around and watched, Jeremy and Joe ran the same fierce stretch of rock-strewn white water three times, so that cameraman St. Georges could get his shots from several different angles. And every time the two Indians went down these rapids they had to portage the canoe back again through the thick bush alongside the river. No trail had been cut there, it was a hot day, and whatever glamour there was in being a movie actor didn't make the canoe any lighter.

Crossing Lac Culotte now we were two days' paddle from the Manowan post of the Hudson's Bay Company in the bush country of central Quebec. Our visit to the post on Kempt Lake had meant a pleasant re-encounter with the hospitable people there. I remembered them well from many past canoe trips in this district. Alex Swaffield the post manager was an old friend. So was Simon Ottawa, chief of the Tête de Boule band whose village was across the south arm of the lake from the post. With Alex and Simon helping, it had not taken long to get together our outfit and a group of Indians who would serve as members of the cast for our films, and work as guides at the same time.

Julien St. Georges and I had flown north from Ottawa a few days previously. St. Georges was a cameraman for the National Film Board, and I was a film director for the same organization. Our assignment was to shoot a number of motion pictures about the Indians who live in the hinterland of the Laurentian Range, and about the abundant fish and game of the northern lakes and forests. The films would help to tell Canadians the story of their own northland—and showings of these movies in the United States would attract American sportsmen and lovers of the outdoors to Canada.

We had already begun shooting on our first location job, *Indian Canoemen*, a 16mm color film. This picture would show the skilled techniques which the Indians have developed over the centuries for travelling by canoe, running rapids, portaging heavy loads, making camp,

building cook fires and fishing. As we paddled along now, heading for the eastern shore of Lac Culotte and the portage over into Lake Nemiskashi, we made quite a fleet. Simon Ottawa, his son Daniel and myself were in one canoe, Julien St. Georges in another with Thomas Quitish and Arthur Nawashish, and our two movie heroes, Jeremy Quitish and Joe Petchigwee, in the third.

In mid-afternoon we portaged over from Lac Culotte into Lake Nemiskashi, and again the other guides must have been just as glad not to be in the movies. Swinging a heavy pack onto your back with the tumpline over your head, or a smaller pack plus a canoe, and then carrying the whole load, properly balanced, off along the portage—it's real work. The guides were used to it and did the portage as a matter of routine. But for Jeremy and Joe it was a little more complicated than that. Portaging the way these Indians do it is an expert job, and I wanted to record their technique on film. So Jeremy and Joe had to take up their loads, put them down again, hoist them up once more, start off along the portage, stop, come back, repeat the whole routine, and so on until we had all the shots we needed.

And towards the end of the afternoon, when we did the tent-pitching and camping sequence, the two sufferers had to pitch the tent twice on the same spot while we got all our shots. Following this, we showed how a mattress of balsam boughs is laid in the tent. The bed that Jeremy and Joe made was very thick and soft, showing up extra well in our shots. Such a conscientious effort at this stage surprised me a little, until the reason was revealed right after supper. Jeremy and Joe headed straight for the soft bed they had made and, exhausted by the rigours of the day, went immediately to sleep.

The tent had to be pitched twice before the cameramen got all the shots they needed.

Next morning on our way down the western shore of Lake Nemiskashi we stopped at a shallow bay fringed with water lily pads, to try for our shots of the Indians fishing. Joe swung his trolling line around his head until it gathered momentum, and then cast the lure out fifteen yards from the canoe. Slowly he drew it back in again while the shiny spoon wobbled and darted through the clear water. He repeated this manoeuvre just once, and hooked a pike. It fought bitterly and seemed to be very heavy. With the fish tugging mightily at one end of the line and Petchigwee at the other, St. Georges was shooting exactly what we needed, and he kept on rolling as Joe hauled his catch into the canoe. The big pike had a head like a barracuda, and it weighed sixteen pounds!

Not more than half an hour later we paddled around a point of land and ran right into one of the best wildlife shots I have ever seen. Included in the film *Indian Canoemen*, it shows a tawny-coloured deer, brilliant against the sombre backdrop of the spruce forest, racing along the shore of the lake in tremendous leaps for a good hundred and fifty yards before it disappears into the bush.

Our location work on *Indian Canoemen* ended when Jeremy and Joe rejoined their own families. We shot their homecoming as the closing sequence in the film. But Joe Petchigwee was still with us when we left the Manowan Post the second time. We had stayed there long enough for Alex Swaffield to stock us up with a new supply of provisions.

The film we were shooting this time was *One Day's Catch*, in 16mm colour again, and also we needed a separate sequence on trout fishing for another film to be called *Speckled Trout Across Canada*. I was cast as a sport fisherman in these films, with two Indian guides, Joe Petchigwee in the stern and old William Dubé as bow paddler. There was only one other canoe in our outfit on this trip, carrying Julien St. Georges, paddled by Zachary Quitish and Athanase Ottawa.

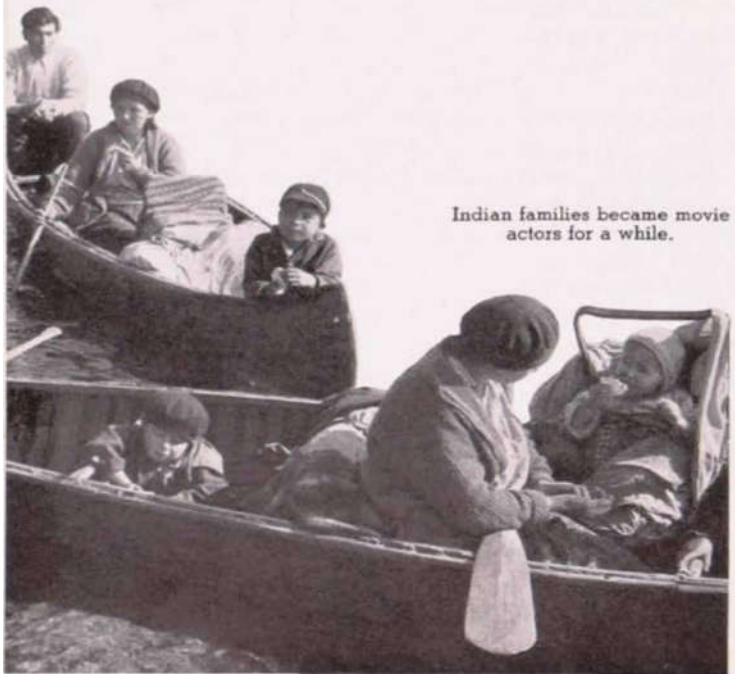
It is possible for fishing to be so good that it is unexciting. In Lake Sayseeginagaw I hooked more than two dozen lake trout in one day, weighing up to about ten pounds apiece, playing the heaviest ones for the camera and releasing most of them. And in Lac Truite, fly-casting for speckled trout, I took the legal limit in half an hour, all of them fish of two to three pounds. The only thing that stands out in retrospect is how uneventful it was, except for one curious incident. In Lac Belisle I caught a lake trout on a fly, using a bamboo fly rod, and immediately afterwards took a speckled trout in the same place on a metal spoon, cast with a steel bait-casting rod—all of which is directly contrary to the usual rule. It was hard for a fisherman to believe; but easy to prove because Julien St. Georges had been shooting all this time, and the evidence is in the film *One Day's Catch*. I guess the fish in Lac Belisle just hadn't read the rules.

With the shooting of this film completed it was necessary for us to get out to Lake Nipigon in western Ontario for a further sequence in *Speckled Trout Across Canada* and location work on other films. Within a week of saying

goodbye to Alex Swaffield at Manowan Post I was to stop at another post of the Hudson's Bay Company—two more, if you count the original Nipigon House. We passed the old, abandoned building on the shore of Lake Nipigon as we cruised down the west coast heading for the present Nipigon House. Here we met I. W. ("Cat-Lake") Macaulay the post manager. He mentioned to us the oversized speckled trout of Lake Nipigon, locally called "coasters." We knew about the existence of these, and in fact farther up the coast from Nipigon House our party later on took speckled trout weighing up to seven pounds! Shots of these magnificent fish, plus a trout sequence made in the Rockies, another sequence shot on the Miramichi River in New Brunswick earlier that summer, and the material we had shot at Manowan—all this made *Speckled Trout Across Canada* a pretty inclusive film for anyone interested in trout fishing.

Except for the Rocky Mountain shooting, I had been on hand at all the other locations. It was an interesting summer, very much so, but the continuous travel in the bush and on the water made it fairly rugged. That autumn we went back to Manowan to shoot a film called *Indian Hunters*, the story of a pair of Indians prospecting a new hunting territory for fish and game. Sitting around the fire that crackled in the big stove at Manowan with Alex Swaffield and his wife was very pleasant for St. Georges and me after coming in out of the crisp air of the autumn evening. We discussed with Alex the matter of which Indians would be the best as the hunters in our film, and picked Big Henry Dubé and Daniel Ottawa.

Paddling with me I again had Joe Petchigwee and old William Dubé. St. Georges had Zachary Quitish and Dominic Ottawa. As we traversed the lakes and portages of the Manowan district we were always on the lookout for game. We found it, too. We shot ducks and grouse with both camera and shotgun—and they tasted wonderfully good at the campfires in front of the tents on those chill northern nights. We caught up with a black bear



Indian families became movie actors for a while.

Alex Swaffield of Manowan.

swimming across a lake, shooting him only with the camera. I carried a movie camera on this trip myself, so that St. Georges and I could sometimes split up and travel separate but parallel routes, in order not to miss any chance at wildlife shots. It was my good luck to be the one who photographed the two moose.

Paddling around a point in Lac Tourbis, we surprised a pair of moose who vanished into the bush before we had time to level a camera at them. St. Georges and I parted company, each heading for a different place in an attempt to intercept them. With Joe Petchigwee and William Dubé I went down the southeast arm of the lake. After twenty minutes' paddling, away off at the far end of the arm we could see a couple of black dots moving across the water—our two moose, swimming. We kept on going in that direction, got behind a long curve of the shore and, thus hidden from the moose, approached the end of the arm. I was hoping the animals might have recovered from their original scare enough to stop down there and begin feeding.

When we reached the last of the curve at the lower end of the arm I was on my knees on top of the packsacks in the middle of the canoe, holding the camera ready to shoot. And there were the moose, standing in water up to their bellies, feeding on water lily roots. They gave us one astonished stare, then got going in a hurry. But as they fled they gave me a fine, long-continued shot of them splashing through the water and then swinging across an intervening strip of marsh into the nearby forest.

Towards the end of our location work the weather turned cold, and we found ourselves camping out in tents

without stoves at fifteen above zero, with ten inches of snow on the ground. We had had it for that year. We could look back on a fine season of shooting, and I was sorry to bid goodbye to the Swaffields at Manowan post.

The next time a film took me to one of the Company's posts the weather was a lot colder than it had been that fall at Manowan. This new location was in northern Manitoba, near Brochet post at the north end of Reindeer Lake. The lake is a hundred and twenty-five miles long, not far south of the border between Manitoba and the North West Territories. St. Georges and I were working together again. We had flown in from Prince Albert via Lac La Ronge, west of Flin Flon and then north, a flight over hundreds of miles of terrain uninhabited except for a few scattered Indian bands. The deep snow of late winter covered the bleak earth.

This was the land where the forest dwindles to a scant growth of spindly spruce and stunted jackpine. The trees grow taller in the valleys, and disappear altogether on the barren, rocky ridges. At the Brochet post, taking the advice of Bill Garbutt the Post Manager and his clerk Frank Henderson, we hired George Michel and Solomon Cook as guides. These two men were Crees, although Solomon's wife was an Eskimo. The Barren Land and Lac La Hache bands of the Chipewyans came down off the Barrens while we were there, to trade their furs at the post. We went out by dog train with our guides, looking for the caribou herds. The Crees and Chipewyans were all hunting.

These people live by the chase, following the caribou as they migrate north and south, Indians and animals both staying in the northern limits of the forest during the winter, going out onto the Barrens in summer and then returning to the tree line when autumn comes. The movements of the caribou are always uncertain. They may congregate by the thousands in a particular district for a month, and then suddenly move out, disappearing entirely within a few days. They had left the vicinity of the Brochet post not long before we arrived.

Travelling by dog team among the headwater lakes at the source of the Sawbill River east of the post, in country marked "unexplored" on the map, we caught up with the caribou herds. While George Michel and Solomon Cook used their rifles, St. Georges shot with his camera. It was not only the hunt and the kill that we were interested in, but the life of the hunters and their families. We came out of the Reindeer Lake region with the footage for a colour film to be released this year.

Just before we left Brochet post on our way back to Ottawa, Bill Garbutt said, "It must be pretty good, getting around the country the way you fellows do."

"Well," I told him, "wherever we go into the north we're seeing the same sights you Company men see and dealing with the same kind of people. I guess we get a kick out of the same things you do. That's why we enjoy making movies up here."

St. Georges summed it up. "It's the Northcountry Bug," he said. "It's liable to bite you the first time you take a trip into the woods, and you may never recover. Any time you show a film with a Hudson's Bay Company post in it, all the men in the audience wish they were fur traders."

Trappers' teams come and go at Brochet, Manitoba, where the picture makers filmed the life of the caribou hunters.

KLONDIKE MEMORIES

By Nevill A. D. Armstrong

The first of a series of articles describing the adventures of a young Englishman who struck it rich in the Klondike.

THIS story starts half a lifetime ago, when after ranching down in New Mexico I heard first of the discovery of gold in the Yukon. I returned to London, where my father was interested in certain mining companies, and eventually, though still only twenty years of age, was appointed assistant-manager of the Yukon Goldfields Co., Ltd.

I was the first Englishman to go to Dawson by an all-water route and that was because my father was fortunate enough to meet the general manager of the Alaska Commercial Company, one day in London. This company had recently established a fur trading post in Dawson, and it was upon his advice that I went via New York, San Francisco, up the Pacific to south-west Alaska, into the Behring Sea, and so to the mouth of the Yukon River. Here we transferred to a shallow-draft, stern-wheeled steamer owned by this company which was making its maiden voyage over that final stage of one thousand seven hundred miles up the river, a "hop" that took us twenty-two days.

Not until I reached San Francisco did the heady flavour of the trip become assertive. It was there we definitely left comfort and set our faces towards the bleak north.

You may imagine how impatient a young man of twenty was, at the delay that was occasioned there—waiting for the vessel that was to take him beyond the Arctic Circle into his land of dreams. Days passed, relieved only by a bit of shopping, including a big Stetson hat which, though it may have subscribed to my sense of the picturesque, was nevertheless useful since I was journeying to the land of the midnight sun, and it would keep mosquito nets from flapping against my face.

At length the ship *St. Paul* was billed to leave on June 11 at midday. I went on board at 11 a.m. She was a small coastal steamer about 1500 tons and brand new. Because this was her maiden voyage she was simply smothered in flowers—all the fire-buckets were crammed with the most gorgeous roses, sweet peas and dozens of other species, and the tables were covered with blooms. The wharf was crowded with people to see this, the first steamer off for the Klondike.

The author in 1898, the year he arrived in the Yukon.

What were my thoughts as our steamer slowly swung round and headed for the Golden Gate? I had no friends to see me off. I was many thousands of miles from my home, but nevertheless, I was supremely happy, thinking the long thoughts of youth—enhanced that night by a glorious sunset which faced us as we passed out of San Francisco harbour and steamed into the Pacific Ocean.

It interested me later to size up our passengers. What manner of people were these who would journey with me to the Klondike and try their luck? My first gasp of astonishment came when I observed an old man of at least seventy years of age and his wife, who looked older. He was a well-to-do farmer from the state of Missouri, yet he had sold out everything, and Darby and Joan were now en route to Dawson where the poor old things confidently expected they would be able to stake some rich ground and hire miners to work for them. The old boy had a violin with him which he played incessantly, much to the annoyance at times of the occupants of the adjoining cabin. The sequel to the story is that the old man and his wife remained in Dawson only a few days, returning by steamer whence they came!

Our passengers were a queer mixture. Prominent among them were two middle-aged American ladies from New York—a Miss Van Buren and a Mrs. Hitchcock.

These ladies were apparently quite rich and, besides hoping to stake good claims, they were taking a most varied assortment of articles for sale and barter. They had with them two enormous Great Danes, which were a perfect curse when we were finally ascending the Yukon River. They also had a large marquee tent, bowling alley equipment, a cinematograph, about fifty live pigeons, some canaries, and tons of canned foods and delicacies. (Later I met them on Bonanza Creek under the guidance of "Big Alec" Macdonald—the "King of the Klondike." They were attired in a most peculiar get-up, especially considering they were big women with much embonpoint! Both wore blue and white knitted jerseys over tightly laced bodices, leather belts with holsters containing large revolvers, blue serge knickers, stockings and short rubber boots, and on top of all, large, wide-brimmed Stetson hats.)

For the rest our passengers consisted of farmers, bartenders, saloon keepers, miners, business men, clerks and an ex-senator of California, by name Jeremiah Lynch.†

After leaving Dutch Harbour on the Alaska Peninsula we ran into ice—moving floes—and we were soon steaming very slowly through an immense field which showed that Behring Strait and Norton Sound were opening up, while we were also told that masses of the ice were coming from the mighty Yukon River. Now we experienced the most awe-inspiring stillness. In the rarefied atmosphere the crunch of floe against floe could be heard miles away, and occasionally the eerie silence would be broken by the slight splash of a seal or walrus as these animals slid off slabs of ice at our approach.

We were now in Norton Sound, heading for the Island of St. Michaels which was our destination. After three days in the ice, land came in sight—a low-lying coast with mountain ranges in the far distance. The water here is very shallow—at the deepest about 24 fathoms—and two miles off shore our steamer was stirring up mud, so we came to anchor.

The weather was getting hotter with twenty-three hours of daylight. It seemed impossible to go to bed in sunshine at 11 p.m.

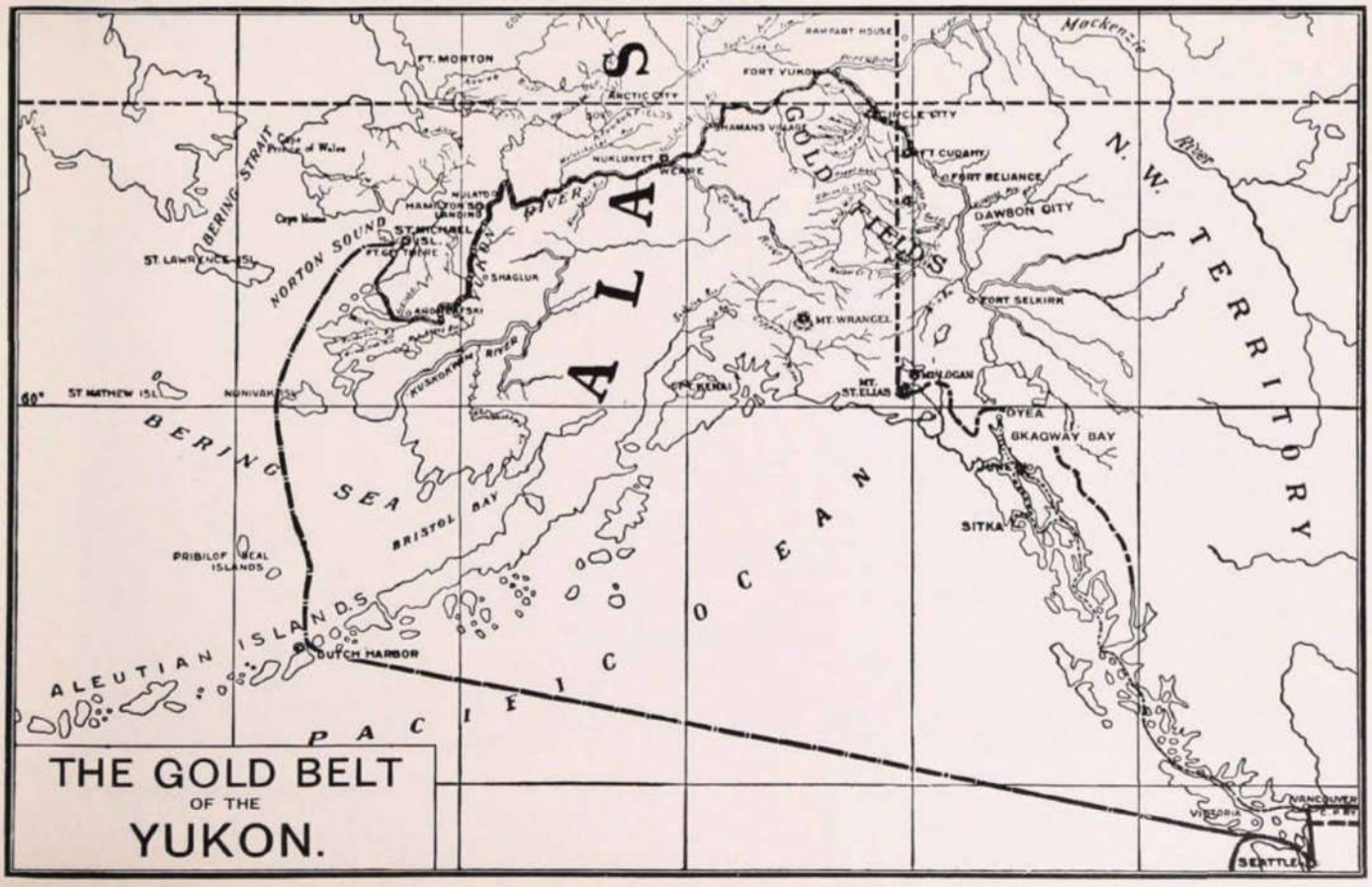
We had to wait here for our river transportation to Dawson—a small steamer might arrive any day. We were taken ashore in the ship's boats and here I made my first acquaintance with Eskimos and their splendid husky dogs; also watched them handling their kyaks and bidarkas (large skin canoes) when hunting seals and walrus. The mosquitoes on land were too awful to describe. It was impossible to move without a net over one's face and gloves on one's hands.

A few days after we dropped anchor, other craft made their appearance—a fairly large American passenger steamer called the *Roanoke*, with gold-seekers on board; several schooners from the Arctic bringing splendid catches of fur, principally white fox and polar bear; the American revenue cutter *Bear*,* a wonderful old wooden ship purchased from the British Navy, and, lastly, a small Ameri-

†See *Three Years in the Klondike*, by Jeremiah Lynch, London, 1904.

*Later used by Byrd at the south pole—Ed.

The author's route from Dutch Harbour to St. Michael's Island and on up the Yukon is shown on this map issued by the C.P.R.



can gunboat called the *Wheeling*, bringing supplies and reinforcements for the army post at St. Michaels.

Every day now we waited anxiously for the river steamer to arrive; we were eager to carry on to Dawson. At length on July 2nd, about 3 p.m., there was shout of "Steamboat! steamboat!", and in the distance, coming from the direction of the mouth of the Yukon, we spied a tiny stern-wheel steamer with one smoke-stack. Luckily the sea was smooth or she would have foundered, since she possessed only a couple of feet of free-board.

Our passengers gathered on deck amidst much controlled excitement. Here was our first glimpse of a steamer and passengers direct from Dawson—from the Eldorado of the North. Now we should get first-hand information. As she approached we could see a lot of people on the small, low-lying fore-deck and on top of the deck-house, and could hear husky dogs howling on board.

When within about a hundred yards of us we noticed a most unpleasant stench coming from the little steamer. The closer she came to the *St. Paul* the more pronounced was the smell. We wondered what it could possibly be; something dead, it seemed. Finally, she came alongside and was made fast. Her name was *May West*. A gang plank was put out from the saloon deck and a good many of us went down to see the passengers come aboard us. What a sight! Never shall I forget it. It was my first view of the effects of cold which maims and kills, of bad scurvy —and of placer gold in large quantities.

Up the gangway came men in heavy winter clothes, unshaven, unwashed, with long hair and ravenous-looking faces. Then a man staggering under what looked like a huge bologna sausage on his shoulder. It was a long leather bag.

"Gee whiz, people, look at that gold—it's gold he's got in that poke," someone said.

And he was right. It *was* gold.

Next I saw a man without feet being carried up on another man's back. We were told that the sufferer had been on a wild gold stampede to Swede Creek, near Dawson, without taking adequate footwear. The temperature had fallen many degrees below zero and, before the poor chap could get help, his feet were frozen so badly that eventually they both had to be amputated. Now he was going back home, hopes unrealized, ambition dead—footless!

Two men followed, staggering along with a square box heavily bound with strip iron; it was all they could do to carry it. This was all gold dust—over $100,000 worth.

And all the horrors of filth and physical hurt could not subdue the thrill which the sight of that gold brought me.

But there was human damage and filth a-plenty aboard that tiny steamer. All the food she carried had disappeared entirely three days before. The dogs howled from hunger and the passengers were almost as primitively savage in their cravings for something to eat. There had been no opportunity for washing; the passengers were as dirty as the small decks—hence the atrocious odour that had spread ahead to warn us and now engulfed us suffocatingly.

While I stood watching beside Jeremiah Lynch, another derelict from the stampede was carried up. No hands or feet this time.

"What happened to him?" I asked one of his companions. "Scurvy and frostbite," was the laconic answer.

The victim's face was black, and there is little question but that he died before reaching home. He was only one of many in similar plight. Men had lost all their teeth through that dread scourge of the lone lands, while another trouble that raged was phthisis; the one and only woman passenger on the *May West* was eaten up with it—a miner's wife who had left her husband behind and was quite obviously "going out" to die.

But there were golden rays through all this gloom. Men strode up that plank carrying "pokes" that contained young fortunes. Some had one, some two, one on each shoulder, while one pair staggered up, each holding the end of a stick, on the centre of which swung a sizey suit-case—filled with gold!

In all, about a hundred and twenty men came aboard, and when it was made known that there had been sleeping accommodation for only twenty-five people on the steamer they had just left, it is hardly necessary for me to attempt to describe what the sanitary and other conditions must have been like.

I noticed one man in particular whose general appearance seemed different from the rest of the passengers. He was old—grey hair and beard, blue eyes, thin nose, an intellectual face and soft, educated voice. He was dressed in a reindeer "parki," fur cap and "mukluks." I wondered who he was and what could have taken the old man to Dawson in 1897. It was obvious he must have spent the winter of '97-'98 in there. It was not long before I found out that he was none other than Joaquin Miller, the Californian poet. Before we parted he gave me a copy of one of the poems he wrote in Dawson, entitled "Comrades of the Klondike."

I shall never forget the first meal that was served after these Klondikers came aboard. It was dinner. I had, of course, imagined that, in view of their half-starved state, they would be given priority; but no, the purser stated that, as usual, we should dine first.

There was a gallery overlooking the saloon on three sides and, when we had all taken our seats, we looked up, and there, standing shoulder to shoulder, leaning over the bannisters of the gallery, was a row of unkempt, unwashed, bearded men, like a pack of hungry wolves watching with glittering eyes every mouthful we devoured and praying that we would be quick about it. As far as I was concerned, my appetite was soon satisfied and I withdrew. When the tables had been cleared and re-set and the gong sounded, there was certainly a stampede, not to stake a claim, but to fall greedily on the first platefuls of meat, cheese, pickles and bread.

We were now up in the gallery as spectators. No effort was made by the stewards to wait on this horde; food was placed in large dishes on each table and it then became free for all. The proceedings were dangerous at times,

forks and knives flashing about as men speared slices of meat, bread, potatoes—reaching all over the table. There was no necessity to change plates for any pudding or sweets—everything was taken on the same one. Fingers were freely used and knives instead of spoons. Within fifteen minutes everyone had finished and the tables were swept clean.

That night I naturally took the opportunity to ask the new arrivals about the goldfields. Here was a chance of obtaining first-hand knowledge of conditions. Some said they were leaving rich claims behind as it did not pay to work them owing to the exorbitant royalty demanded by the Canadian Government. One man would affirm that the people in Dawson were so wealthy that they paid any price for desired articles, while the next said people were so poor they could not pay for their passage out of the country. But what was most damping to the spirits of the gold-seekers was the statement that the whole Klondike district was now staked so that new prospectors would have to travel far afield. Also that typhoid had broken out and food was very scarce.

But quite apart from all the hard-luck stories, there was no question regarding the great richness of Bonanza and Eldorado Creeks and some others. And that was the point I wanted to get at. It was a comforting fact that the passengers on the *May West* were taking out about $400,000 between them. The sight of all this gold and the knowledge that where this came from there must be more, only filled me with a frantic desire to be off, to get on with our journey. Every hour might be important. I knew there were thousands of excited prospectors converging on Dawson by many routes—particularly the White and Chilkoot Passes—and we hoped to beat them to it.

At last, on July 5th, we sailed, not in the odorous *May West*, but in a new and powerful stern-wheeler, *Leah*, launched that day, pushing a large barge. There was accommodation on both steamer and barge for passengers. If I remained on the *Leah* I should have to share a tiny cabin with someone else, but if I decided on the barge I could have a room with three bunks, one above the other, to myself. I chose the latter.

And so, exactly two months after leaving London, here I was steaming slowly towards Eldorado. It was frightfully hot. Mosquitoes and black flies filled the air, and in the neighbourhood of the Yukon flats it was impossible to sleep at night. But what was more disturbing was the constant repetition of those tales we had heard in St. Michaels. These met us all the way, told in shouts by men in every manner of craft that passed us coming down from Dawson.

One and all advised us to turn back! The town was ridden with typhoid. The streets were full of dead. All the mines were shut down and there were 10,000 men out of work. Every inch of the gold-bearing land had been staked out.

But on we went, the first ship to make the trip since the winter ice had melted, feeling our way gingerly with constant soundings, stopping hours every day to cut wood from the banks to keep the boilers going, occasionally picking up the local post from some scattered station by receiving on board a letter attached to a chunk of wood thrown from the bank, and once passing through a tremendous cloud of smoke from a forest fire.

The second instalment of Colonel Armstrong's Klondike reminiscences will appear in the next issue.

The Alaska Commercial Co.'s "Leah" at Dawson. This was the new sternwheeler on which the author travelled from St. Michael's up the Yukon. E. A. Hegg

Bill Hall with blue and white fox skins

Early Spring at Arctic Bay

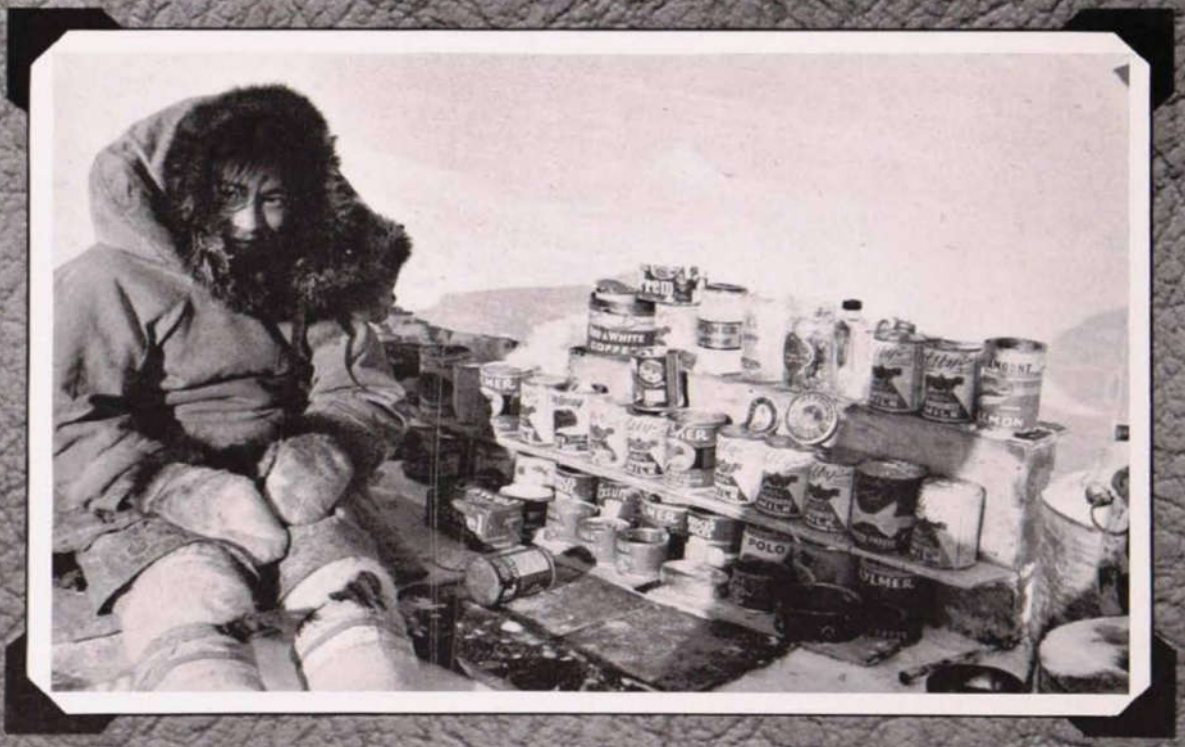
Leaves from the Album of

John Cormack

Building a snowhouse at the post

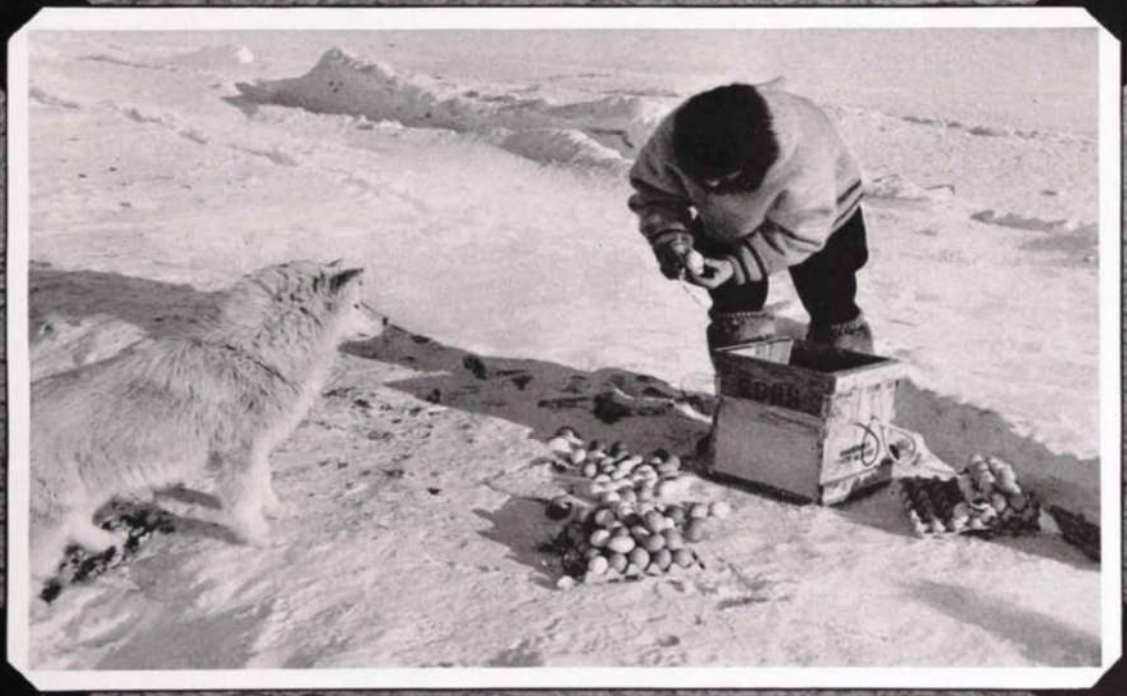
Wynkyn, Blynkyn, and Nod

Bill pours coal oil for Oayooraralook

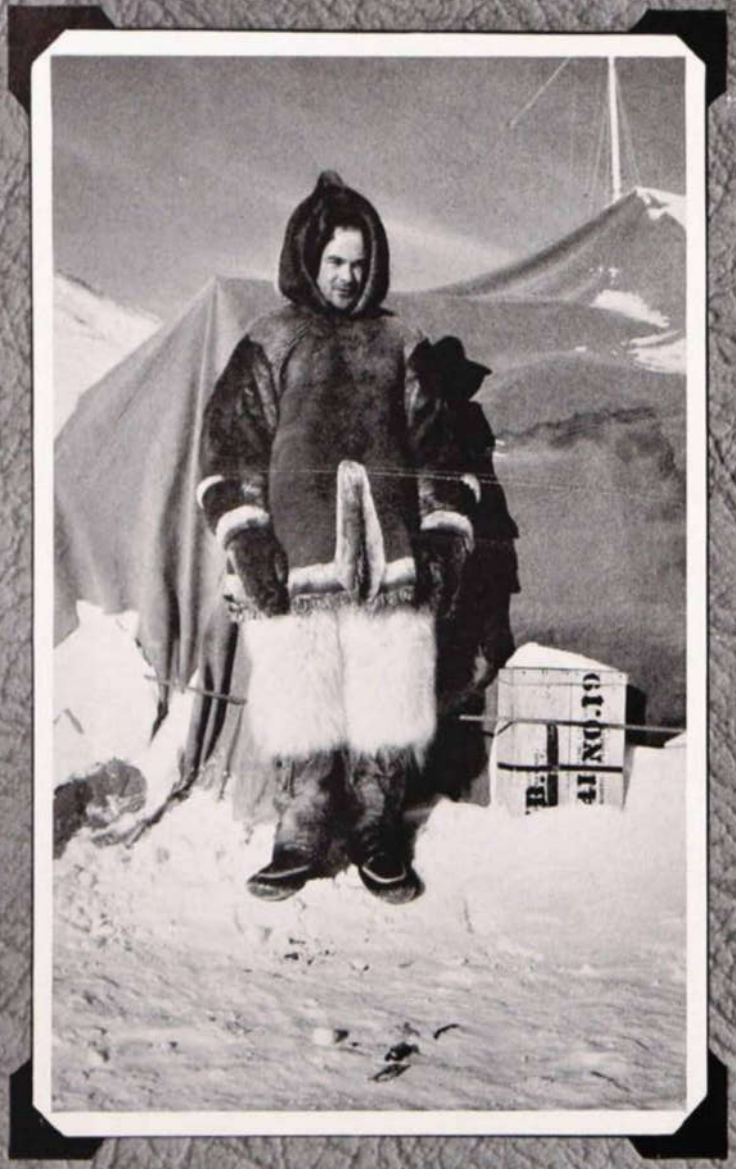


Playing storekeeper in the snow

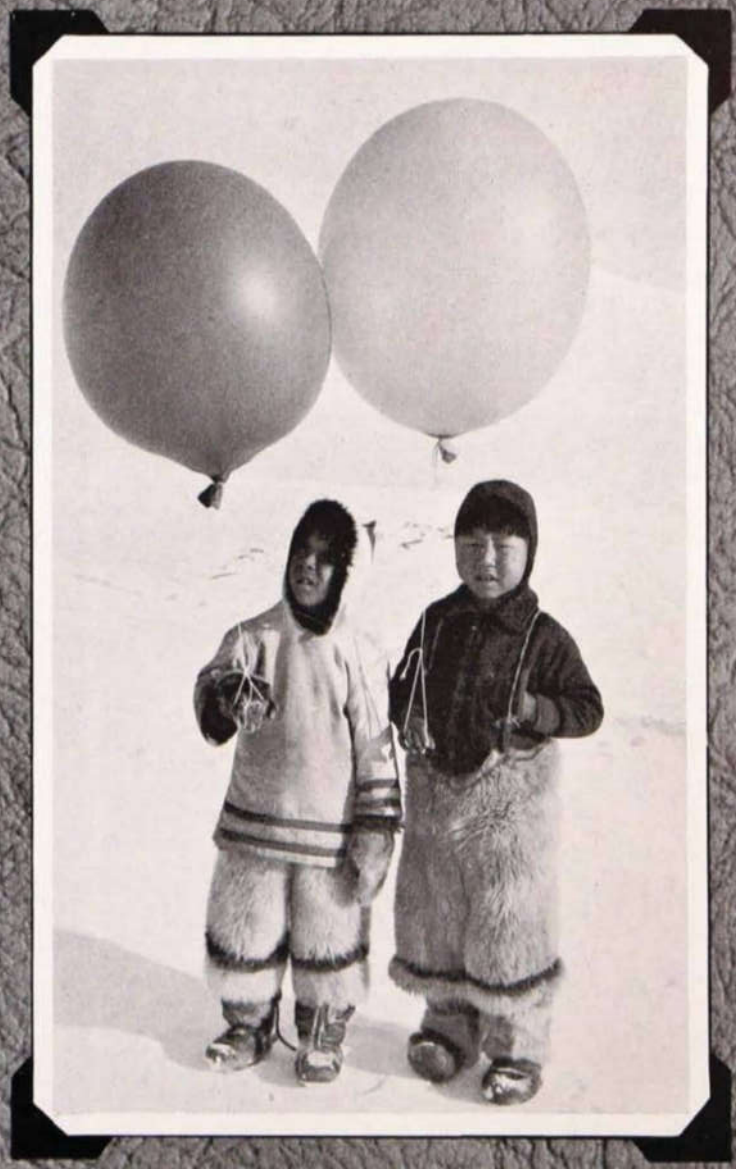
Costumes, old style and new



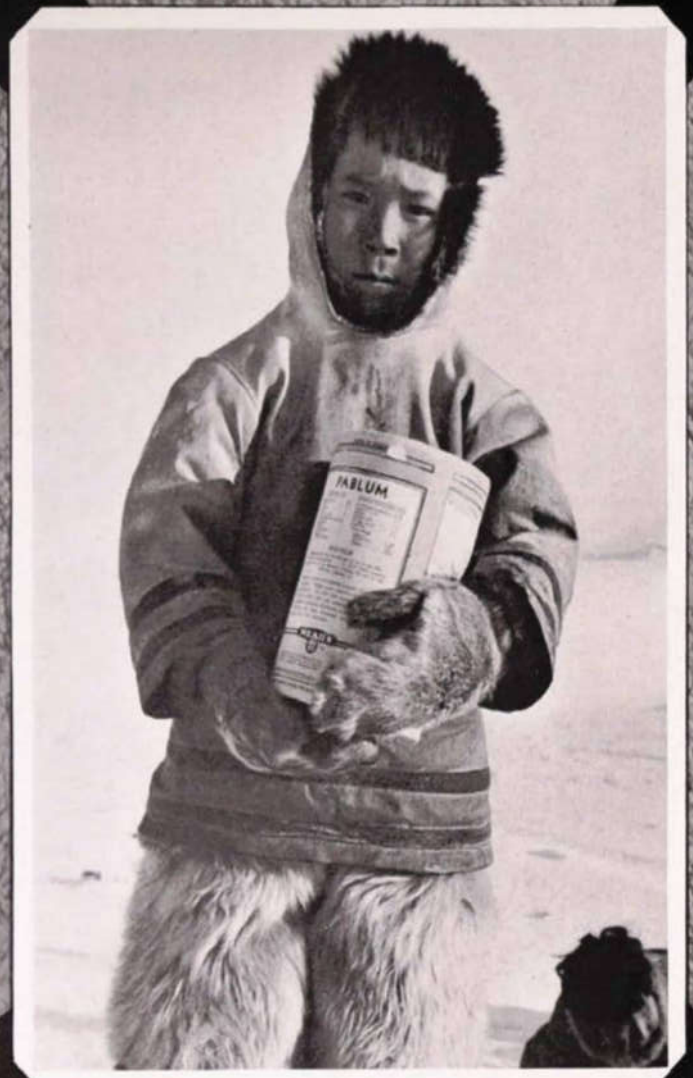
Sorting out casualties on the ice



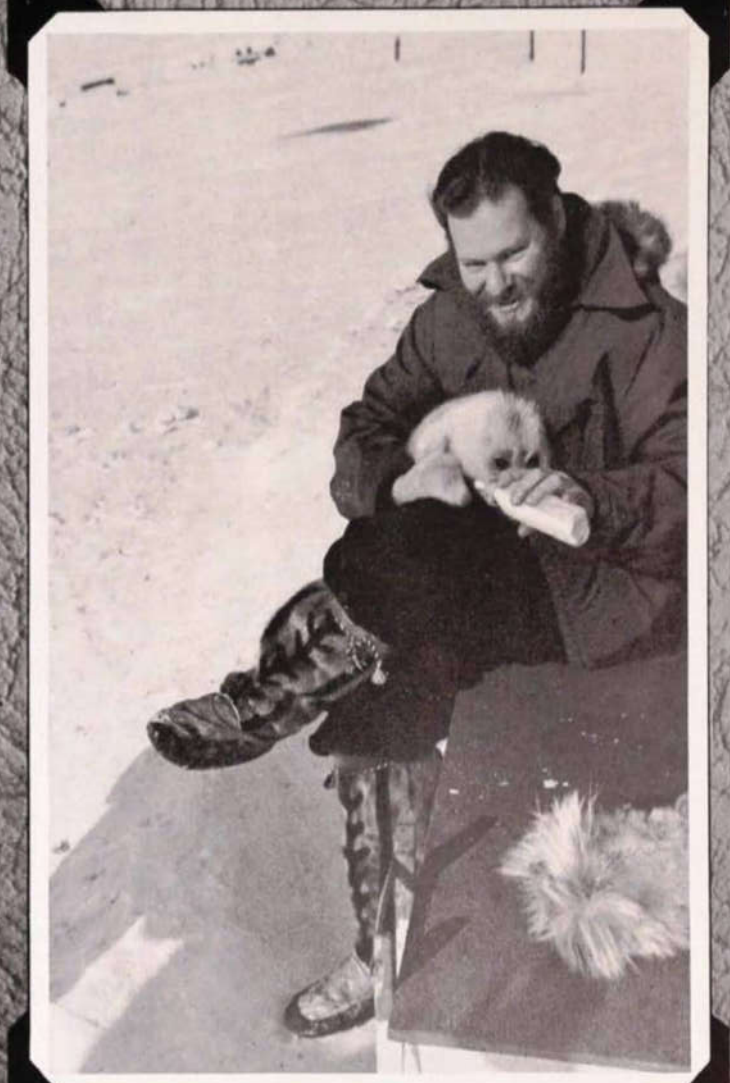
Bill Hall in his polar-bear skin pants



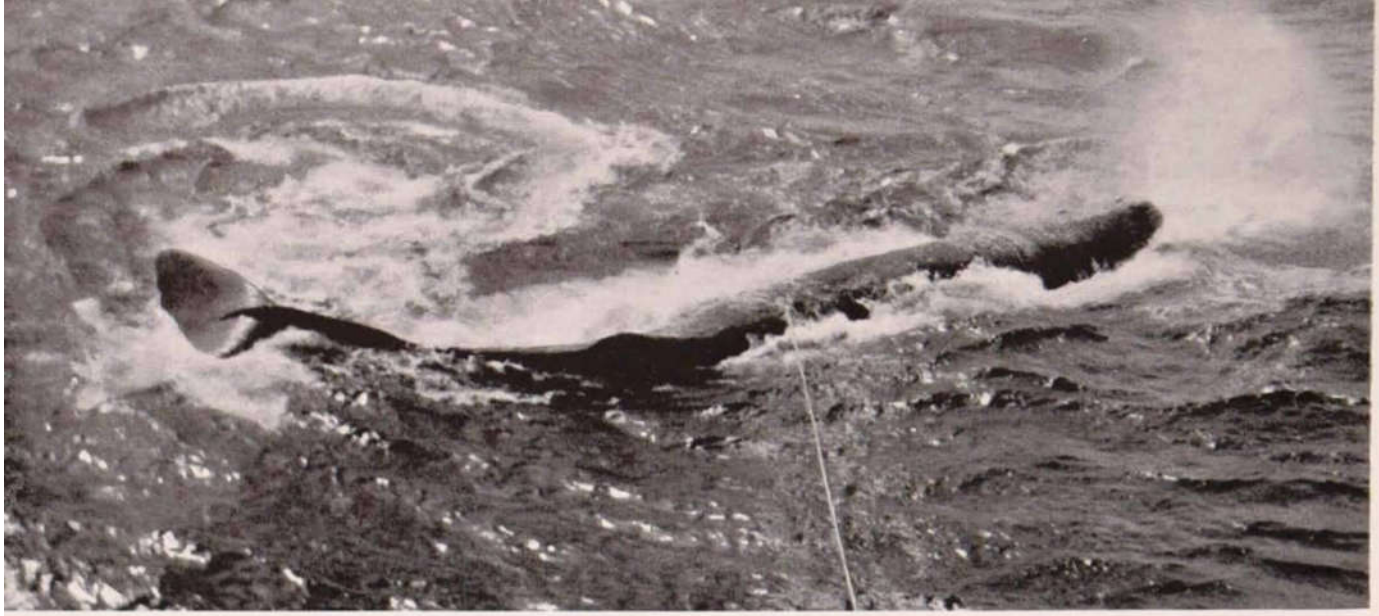
Boys with piball balloon wind-indicators



Pauloosie takes home a box of "Family Allowance" Pablum



Bill Demery, Met. station cook, feeds his baby seal, Homer



The harpooned whale thrashes about in his fury while the killer ship plays him with winch and rope. Note the vapour rising from the monster's blow-hole.

THERE GO FLUKES!

A giant sperm whale makes a running fight for its life against killer whales and a killer ship.

Story and Pictures
by W. J. Granberg

NOBODY had to tell me when the *Nahmint* reached the open sea. The ship practically did an inside loop and I fell out of my bunk. Shakily I fumbled into my clothes in the dark and clawed my way up the ladder to the bridge. Peering through the spray-drenched windows, I saw that the killer ship's foredeck, a good twenty feet below me, was a welter of green water. The man at the wheel, however, appeared unworried.

"Kind of rough, isn't it?" I gasped.

The helmsman gave me a small nod. "Well," he said, "maybe a little. But then it's always choppy in-shore."

Shore did not seem at all close to me, and I thought wistfully of the smelly whaling station at Coal Harbor on the northwest tip of Vancouver Island that lay twenty miles behind us.

About fifty miles off shore, we left the warm wheelhouse and moved to the windy flying bridge overhead in order to have a better look at the sea. Capt. Einar Jensen sent the lookout aloft to the barrel high on the mast. The lookout is a man who has no regard for life or limb, and I didn't envy him his lofty perch in the crow's nest that was tracing crazy letters against the sky.

Erling Nelson, mate and gunner, checked the harpoon gun mounted high in the bow of the ship. Under it was a tilted pan holding a coil of heavy rope line which was secured to a light steel cable running to a power winch. This is the gear for bringing in the whale.

The gun loads a cartridge holding one and one-half pounds of cordite and fires a steel harpoon weighing 132 pounds. It is a clumsy and inaccurate weapon at best, for it must trail the rope through the air. In order that the gunner may have some slight chance of hitting his target, the ship must be within 125 feet of a whale before he pulls the trigger.

At the head of the harpoon, just beyond the flukes, is the warhead, a small time bomb set to explode as soon as the whale is penetrated. The flukes are tied down with a bit of twine that breaks and allows them to get a grip in the animal. From then on it is a matter of playing the monster with winch and line, checking him, or allowing him to run with the ship until he dies.

We were rolling along with all eyes scanning the sea when the lookout sang down:

"She blows, captain! Off the port bow!"

"It's a sperm!" Jensen shouted as he caught a glimpse of the spouting whale. He rang for full speed and the ship charged through the sea with water tumbling in over the bow.

A sperm blows anywhere from fifteen to thirty times, and the whole idea is to get close enough for a shot before it goes down. These beasts stay down about twenty minutes and thus may change their course while under water, a pesky habit which often throws the ship off the trail. As a result, the hunt for one sperm may continue for hours over a very large segment of the ocean.

Our sperm was still on top, but the minutes were running out. Then, cutting sharply across our bow came a pod of killer whales. There were about nine of them, some twenty feet long, black and vicious looking as they knifed through the sea.

The ship drove on. The mate clung to the gun as water tumbled inboard, drenching him. It was a race between us and the killers, and the killers got there first. They rushed in savagely, snapping at the sperm's belly, and ribbons of red spangled the sea like stripes in a flag.

"They'll spook him!" Jensen groaned.

"Steady on," Nelson roared. "There'll be flukes!"

The huge whale was wallowing wildly, thrashing the sea with its tail in a frantic effort to shake off the killers. In the fury of their fight, sperm and killers were unaware of the greater danger bearing down on them.

"There go flukes!" the lookout cried as the monster hunched itself to sound.

Nelson let out a yell of warning as he pulled the trigger. Every man held his breath, wondering if the ship would strike the sounding whale. The helmsman hauled the wheel over hard and we knew the ship had cleared the beast's flailing tail.

"Line on!" the skipper shouted. "Line on the big sperm!"

"No good!" Nelson cried from the bow. "The shot was too far aft. He went down too soon and I caught him just forward of the tail."

The sperm was down out of sight and the line whipped from the gun platform. Cable followed, shrieking through the blocks. The ship was standing directly over the whale, and then the line slackened suddenly and the sperm surfaced just a hundred feet ahead of us.

"Winch him!" Jensen cried. "Take in the slack!"

The winch clattered for a few revolutions and then the sea opened up as the giant whale hurled his entire body from the water like a small mountain shedding an avalanche.

"Full ahead!" Nelson shouted. "I'll try for another shot!"

The *Nahmint* literally bounded through the sea. The winch rattled up the slack in the line and held it taut between ship and animal. Nelson loaded the gun in a hurry and held his sights on the surging monster. We were so close I could see the end of the harpoon in the sperm's broad back.

Flanking the sperm and closing in for another attack were the killer whales. Nelson bent over the gun and I saw him settle his feet against the deck and tense himself for another shot. Then, lunging high out of the sea, the sperm veered away as the mate fired. The shot went wide and the harpoon fell into the water.

The mate's rage was an awesome thing as he stamped around the gun, beat the air with his arms and cursed roundly and loudly. Grinning in admiration, the helmsman

The killer ship on which the author made his exciting voyage off the coast of Vancouver Island.

spun the wheel and the ship heeled around to meet the whale. But the whale kept turning and our line to the harpoon in its back was as tight as a fiddle string. The sea was a turmoil of white water as the monster kept turning in a wide, threshing circle, rolling and blowing. It was so close I could hit it with my hat. The sperm was pulling us in its own circle. If it sounded, we would have to give the beast some slack, or lose our tackle.

"Slack off, slack off!" Jensen shouted.

But the line was so tight from the weight of the whale that the brake ratchet on the winch would not free. It looked as if he would have to risk riding it out, or cut the line.

"He's coming!" Jensen shouted.

Nelson picked up a harpoon and swung it over his head as though it were a toy spear. It was a futile weapon, but the move was an instinctive one against sudden danger.

I saw the massive, blunt head of the monster as it loomed up just off the bow. Nelson drove the harpoon down with a wild yell as the whale struck the ship. It was a glancing blow, but the vessel thundered with it, and the sperm slid by us, still blowing.

"He'll tear away the screw and rudder if he sounds under us," Jensen said—and calmly enough, I thought, considering my feelings at the moment.

The whale rolled, just a few yards away, as though wondering what to do next. Then, twisting suddenly at the end of the line, it headed right for us. The ship shuddered and staggered as the beast struck.

"There go flukes!" the mate roared.

"Cut!" Jensen shouted.

A seaman cut the line with one slash of his axe. Jensen slammed the engine order telegraph to full ahead and we swung with the sperm as it went down broadside to the ship. I held my breath and hung on.

Nothing happened—we were clear! We ran ahead for maybe a full minute and then Jensen shut down to wait for the whale to surface.

We rolled in the trough of the sea, waiting. The lookout spotted a humpback, but the skipper couldn't see any sense bothering with that smaller, barnacled whale. Every man wanted the big sperm, its precious oil, and the higher bounty it paid. Then, suddenly, came the spine-chilling cry from the lookout:

"The sperm! The sperm! She blows, captain, off the port bow. She blows, she blows!"

With a burst of speed, the *Nahmint* surged toward our target.

"How far off does she lay?" the impatient mate shouted up to the lookout.

"Good half mile, I say," the man high in the barrel replied, squinting against the wind and sun. "Headed west, he is."

Nelson stamped back and forth on the narrow gun platform.

"We'll never make it," he fumed. Then, to the lookout, he roared: "Mind you mark well the course he takes when he sounds!"

He had hardly spoken when the lookout cried: "There go flukes! West by north, he goes!"

The mate scanned the sea anxiously as we rolled westward. I had just made up my mind the sperm must have changed course when the lookout sang down:

"Dead ahead, dead ahead! She blows!"

The giant whale rolled majestically a short distance from the ship. Outlined against the horizon, still standing shakily, was the harpoon Nelson had thrown by hand.

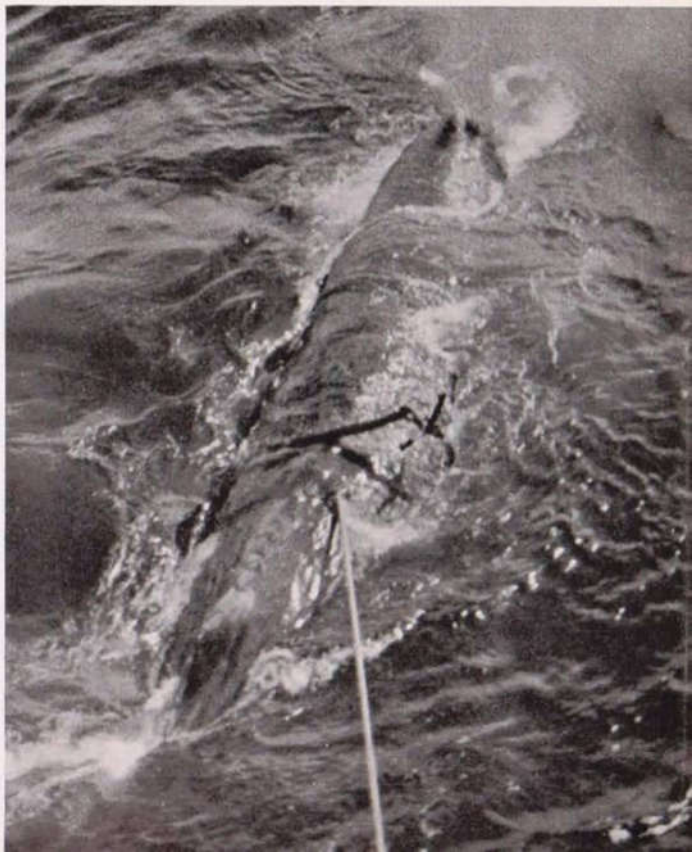
"I see my iron, I see my iron!" the mate shouted. He turned toward the flying bridge and flung his plea up to Jensen:

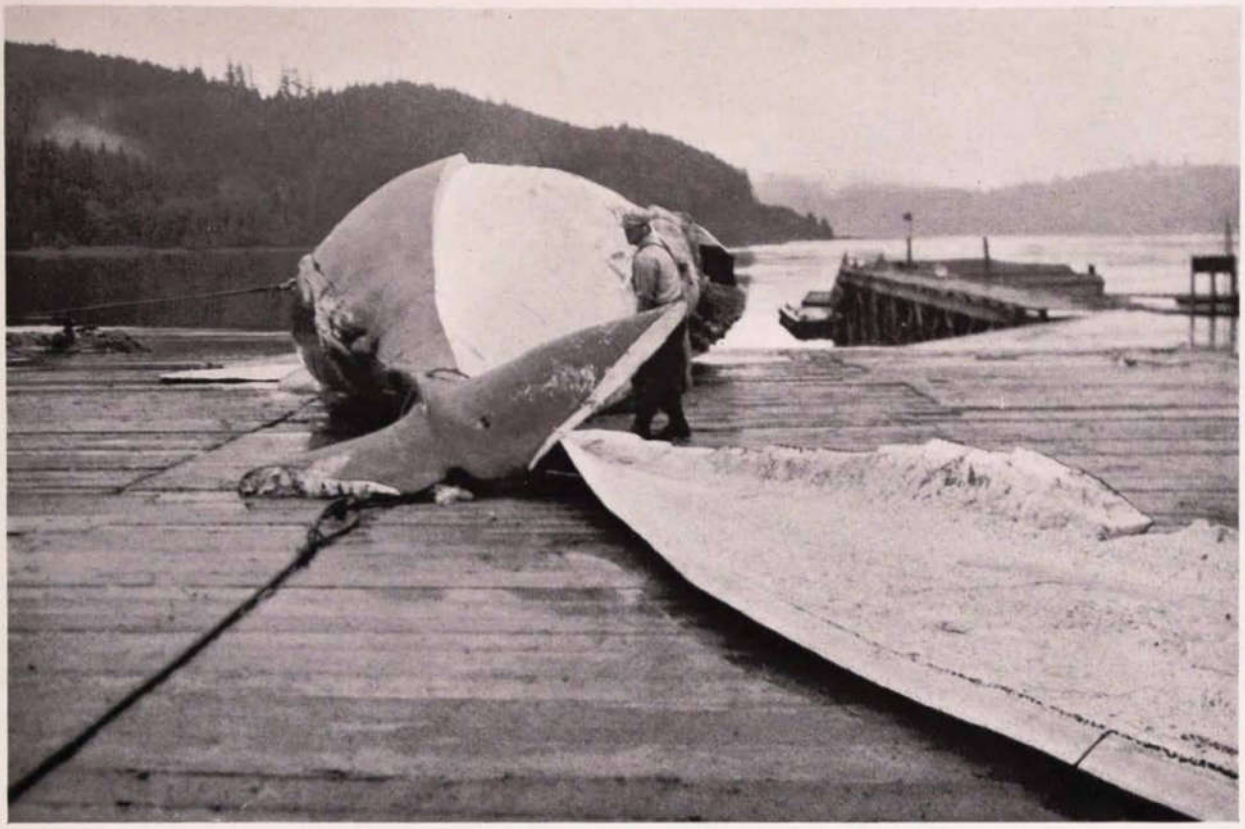
"Speed, man! Speed!"

The sturdy little vessel was practically leaping through the water. The sperm, as though aware it was being chased, assumed a zig-zag course. We gained on it steadily. Jensen relieved the helmsman and took the wheel himself. Nelson unlimbered the harpoon gun and swung it free, back and forth across his target, calculating the distance from ship to whale, willing to risk a long shot rather than none at all if the whale hunched itself with the idea of going down.

We were only about 300 feet away, but the worst of it was we were looking at the whale's tail, giving the mate no vulnerable target at all. On we went, until I thought we would run over the beast. Then, suddenly, Jensen laid the helm hard to starboard as the sperm veered to the right. Nelson fired in that same instant and the harpoon was lost in a cloud of smoke as yells of triumph went up from the deck. The iron struck full in the beast's ram-like head,

With two harpoons sunk into his great body, the sperm fights gamely a few yards ahead of the "Nahmint." Only about three fifths of his total length is visible here.





On shore at the whaling station, a section of blubber cut out by the flensers is pulled free by winch and cable.

and one of the largest animals in the world was on the end of our line.

"Another iron, another iron!" Nelson shouted as the whale ran with the line.

The gun was reloaded quickly. Jansen rang for Half Speed and let the sperm run with the line until most of the cable was out.

"Check him now, check him!" he ordered.

The grate of steel against steel sent sparks flying as the winch was braked and the slack went out of the line. Jensen slackened speed and let the whale take on the weight of the ship. The winch turned slowly, drawing beast and ship together.

High out of the water, fighting desperately but futilely to shed the harpoons, the whale now was an easier target as we bore down on it. I guessed its length at a good sixty feet. We were within two hundred feet of the beast and still the straining tackle held. The ship pitched and tossed on the churning wake of the monster and I wondered how the mate would even attempt a shot from the wildly tossing bow.

"Stand by to take in the slack!" Jensen called to the men at the winch.

As though hearing the order, the whale sounded without warning and its gigantic tail was outlined against the sky in black relief as it went down.

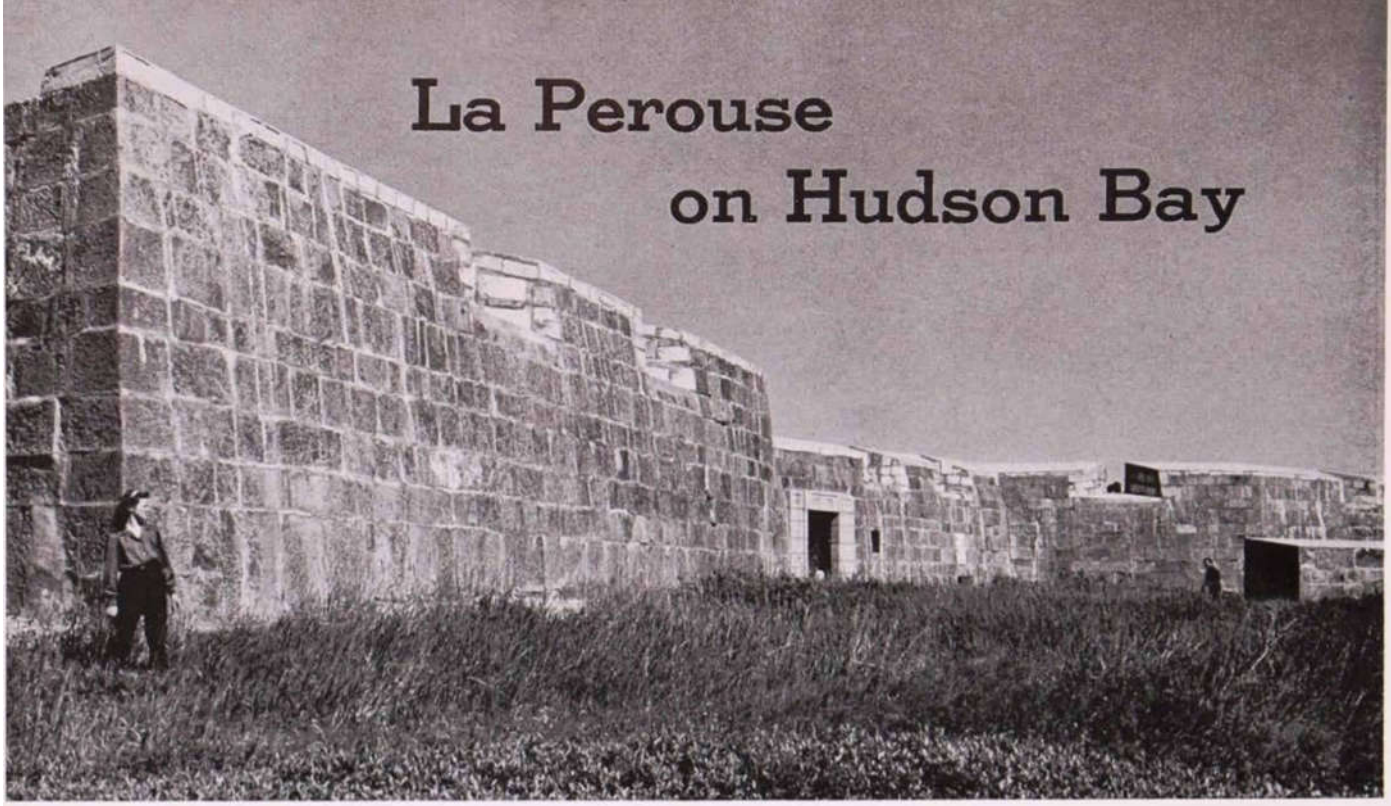
"He's badly hit," Nelson shouted. "He'll not stay down long."

True, the sea ran crimson along the sides of the ship, but how long the sperm would fight was anyone's guess. Then, thrashing angrily, it broke the surface. Jensen ordered the engine stopped to let the whale tire itself out by pulling the ship. The beast was not yet beaten and in one last, great bid for freedom it pulled us at a good five knots. It was a strange ride, that rolling wallow at the whim of the whale, but it was soon ended.

The world's largest animal makes no sound in its fight for life, no cry when it perishes, and when the cable went suddenly slack I knew the chase was ended. A sudden hush fell over the ship as victory came to us. Orders were given quietly as the *Nahmint* drew alongside the stricken beast.

It's huge tail was hoisted to the rail and the flukes trimmed to make towing easier. Then, as is the custom, the ship's initial, N, was carved in the tail as mark of ownership. In order to keep the whale afloat on its tow to the station on Vancouver Island, air was pumped into it through a hose run from the compressor in the engine room. When the animal was buoyant, chains were slung around it and we turned toward Quatsino Sound. Jensen talked to the whaling station by radiophone and by the time we were inside the Sound, a tug was awaiting us to pick up the tow for the run to the factory.

La Perouse on Hudson Bay



Prince of Wales's Fort showing the southwest (near) and southeast bastions, with the entrance in between, as restored by the Dominion Government. R. Harrington

An eye-witness account, hitherto unpublished, of the French capture and destruction of Prince of Wales's Fort and York Factory in 1782.

Introduction and Footnotes
by R. Glover

THE destruction of Prince of Wales's Fort and York Fort in 1782, by the Comte de la Pérouse with one 74-gun line of battle ship and two 36-gun frigates of the French fleet is not usually rated a very great event in Canadian history. An attack on Rupert's Land was not then an attack on Canada. Yet Canadian interests were not unaffected. Far from doing harm, the attack brought pure advantage to the fur trade of Upper and Lower Canada and its headquarters, the city of Montreal. It deprived the Hudson's Bay Company's men on the Saskatchewan of their year's outfit of trading goods for 1783-1784. It drove the Chipewyans to trade at Fort Chipewyan, instead of carrying their furs to the H B C at Churchill. Thus the H B C's loss was the North West Company's gain. From the Canadian angle of that day the destruction of the H B C s two chief trading posts may be called a beneficent act of war; it may also claim the modern Canadian's interest as the last occasion to date on which the northern coasts of the present Dominion have been assailed by enemies of the British Empire. Here the *Beaver* presents a newly discovered French narrative of the expedition that destroyed the H B C forts.

Three main accounts of the French operations in the Bay have long been extant. The first is the report of the French Commander-in-Chief, the Comte de la Pérouse, published in the *Gazette de France* on October 29, 1782, and quickly reproduced in the English press. The second is the story told by Edward Umfreville in his book, *The Present State of Hudson's Bay*, which appeared in 1790. The third is the account of one of De la Pérouse's officers, later Admiral de la Monneraye; this last is entitled a "Journal," and may be based on a day-to-day diary, but was in fact not written till after the French Revolution, nor published till 1888. Besides these, an excerpt from the York Fort Journal, written by Humphrey Marten, and describing one incident in the French operations, was published in the Champlain Society's *Journals of Hearne and Turnor* in 1934; and David Thompson gives a hearsay and rather jaundiced story of the attack on Churchill.

Of these accounts Edward Umfreville's of 1790 is easily the best known, most quoted, and by far the worst. It ostensibly consists of two letters reprinted from the *Morning Chronicle* of April 1783, and Umfreville thus takes cover behind the anonymity of a letter-writer to a newspaper. That he was in fact their author may be guessed. Their first publication in 1783 is suspiciously closely synchronised with his quarrelling with the H B C owing to "some disagreement arising in point of salary;" and so is their second publication, in his book of 1790. In 1789, after five years' service with the North West Company, Umfreville applied for re-employment in the

H B C and was not accepted on the terms he asked. Thereupon, (as Hearne says), he "published an account of the Hudson's Bay, with the same ill-nature as the former authors [i.e. Arthur Dobbs & Co.]; and for no other reason than that of being disappointed of succeeding to a command in the Bay, though there was no vacancy for him." Umfreville's book is indeed shot through with "ill-nature." He has a general hostility toward the H B C and a violent personal animus against Humphrey Marten, chief at York Fort, that stamp his book as an attempt to pay off real or fancied old scores. Curiously enough, the anonymous author of the letters he borrows from the *Morning Chronicle* of 1783 was equally envenomed against Marten. He was also, like Umfreville, present at the surrender of York but could give only a second-hand account of the fall of Churchill, which Umfreville too had not witnessed. It may well be, then, that Umfreville was quoting himself when, with a specious show of impartiality, he reprinted the seven-year old story from the *Morning Chronicle* of 1783; and in any case it is a story that selects and omits facts in a manner well suited to support Umfreville's prejudices.

From the vengeful narrative of Umfreville it is pleasant to turn to the dispassionate accounts of the French officers, professional men of war who knew the odds against their opponents and make no attempt to ridicule them. The new French account is an interesting supplement to the old. It consists of one faded sheet of foolscap, closely written on both sides in rather pale ink. An attached note declares it to be the "work of a marine officer named du Tremblier." No officer of that name is mentioned either by De la Pérouse, who sailed on the battleship *Sceptre* or De la Monneraye who sailed on the *Astrée* frigate. However it is not surprising that either should omit mention of him, for he was aboard the third French ship, the frigate *l'Engageante*. He states that he wrote his account between October 12 and December 31, 1782. Both the ink and the paper of our document seem consistent with an 18th century date, but this does not prove that it is the original. The at times highly individual spelling recalls the erratic orthography sometimes employed during the 18th Century even by admirals in the British Navy. The account is unsigned. At point after point this new version is confirmed by the other two French accounts, but its dating of the day to day record is more complete than either. It may therefore appear both reliable and valuable.

Jean-Francois Galaup, Comte de la Perouse, who commanded the expedition of 1782.

One or two facts from the French record may be worth glancing at here. If these French accounts can be trusted (and they probably can) the English at the Bay committed the not uncommon error of over-estimating the numbers of their opponents. At Churchill, says our author, 150 French soldiers were landed; both Umfreville and Thompson supposed the French forces to total 400. However an ample advantage still lay with De la Pérouse who writes "I was assured that if the enemy should meditate any resistance the *Sceptre* could easily reduce them." At York likewise Humphrey Marten estimated the number of his opponents at 700 men, though De la Pérouse states he only landed 250. But he also brought "all my mortars [and] all my cannon" and against these the wooden palisades of York were no defence.

Perhaps the most interesting remark of this new account is that, off the mouth of the Churchill, "We dropped anchor 1 league from the fort, then, *flying the English flag and pennon*, we lowered our ship's boat." No other account mentions the French trick of flying British colours to deceive the H B C men at Churchill, but the truth of it seems inferentially confirmed by De la Pérouse's statement that at York (where a delayed landing and long approach march made his recognition certain) the garrison might "entertain projects of defence, which that of Fort Prince Wales [*sic*] could not have had any idea of."

But none of these accounts answers the most interesting question about De la Pérouse's expedition to Hudson's Bay—namely, *why* did it ever take place? Six weeks before she sailed for the Bay the *Sceptre* had been badly damaged in the great battle of the twelfth of April where George Rodney heavily defeated the French fleet. Rodney had broken his enemy's line and annihilated their centre in a day-long conflict, while the sharks of the Caribbean leaped from the water and struggled with each other to feast on dead and dying Frenchmen among flaming hulks and fallen rigging. From this scene of slaughter the surviving French ships had fled, some to Curaçao, some to St. Domingo. When De Vaudreuil, the senior surviving French commander, sent De la Pérouse from St. Domingo to the Arctic, he deprived himself of a newly repaired ship of the line and two first class frigates for half a year at least. He thereby enhanced in equal measure the disadvantage at which Rodney's victory had already placed him, and he accepted this added military handicap for no greater gain than the destruction of some civilian property.

DU TREMBLIER'S ACCOUNT

Translated by Gertrude Laing

June 1782. Departure from the Cape, of the island of St. Domingo, May 31, 1782, for a special expedition aboard His Majesty's frigate *l'Engageante* commanded by the Marquis de Lajaille, ship's lieutenant, under the direction of Monsieur de Lapérouse, commanding the *Sceptre* with 74 guns, and the frigate *l'Astrée* commanded by Monsieur de Langle, ship's lieutenant.

We left the cape of St. Domingo Island on May 31, at 2 a.m., with the *St. Esprit*, which was in charge of a convoy of more than 100 ships, along with three other warships. We received a signal to get under way on June 1st.

June 2—We spoke to the *St. Esprit* during the morning, and were told to sail on ahead.

June 4—We sailed close to land, on the look-out for Turk Island[1]. At 2 o'clock we sighted land straight ahead. Between 5 and 6 o'clock the *Sceptre* signalled to us as well as to the *Astrée*, and at 7 o'clock we separated from the convoy.

June 7—Our Captain, Monsieur de Lajaille, went on board the *Sceptre*.

June 8—At 9.30 a.m. we sighted two ships to windward about 5 leagues away.

June 9—Monsieur de Lapérouse signalled us to discontinue the pursuit [of the ships seen on the 8th].

June 13—The *Astrée* put up our signal; we joined her immediately, and lowered our boat to go on board, finding ourselves almost a league away from the Commandant.

June 15—Monsieur de Lajaille went on board the Commandant. He returned with two bales of coloured cloth for the landing troops.

June 20—We sighted a ship to leeward, and started in pursuit[2].

June 21—We continued in pursuit of this same ship until 1.30 without being able to overtake it.

June 22—At 3 o'clock the Commandant signalled to us to heave to. Our captain went on board. He came back at 5 o'clock, having sighted a vessel to windward. We received the signal to give chase. At 6 o'clock we gave up the chase.

June 30—We saw banks of ice, commonly called by sailors *banquises*, [ice-bergs], which would be about 200 or 300 feet high.

July 1782. Monsieur de Lajaille went aboard the *Sceptre* July 2, at 3.15. The fog began at 7 o'clock. We were so close to an iceberg one could throw a stone on to it without any difficulty. Since the fog was so heavy, and we didn't know on which side of us the two ships were located, we sent up signals, to which they replied. One could see very little through the fog save great blocks of

Today the great guns stand once more looking out to sea between the embrasures the French demolished nearly 170 years ago.
R. Harrington

ice, with smaller pieces which had probably broken away. The ice-mass continued to grow in volume. As it was very heavy, it struck with great force against the frigate, and because of the vast quantity of ice we were unable to avoid the blows. At 10 o'clock we succeeded in getting clear of it.

July 3—We noticed more ice ahead of us.

July 7—At 9.30 we tacked about because of the ice which lay ahead of us. As we veered about we could hear the sea breaking on the banks of ice as though breaking against land.

July 16—We sighted land. We believed it to be [illegible].

July 18—We came into view of the land, which we recognized as Resolution Id. [Entrance to Hudson Str.]

July 19—We altered our course several times in order to find an opening in the ice-pack. Unable to go through it because of its thickness, we were obliged to tack about and go back on our course all during the night. At daybreak, the *Astrée* signalled land on the eastern horizon. Thereupon we headed into the ice-pack at the clearest point. Several times we had to stop, the ice was so thick and so heavy.

July 20—After being caught in the ice until 3 o'clock, when we got free, we had to heave to in order to wait for the Commandant and the *Astrée*, which were not yet through it. We were at that time about 5 leagues distant from the land, which we recognized as Lasblack [Saddleback?] Island. At 8 a.m. we noticed a number of natives going off to hunt seals, whereupon we ran up the English flag and pennon. Some of the natives came on board. These men are well-built, of average height, but swarthy, and with very small eyes. Their canoes are made of whale bones covered with animal [seal] skins. They give skins in exchange for knives or shells or anything shiny. For weapons they use spears and arrows.

July 23—Having arrived in a little bay between the islands and the mainland, we cast anchor in 55 fathoms of water, with sand on the bottom. Forthwith we lowered the boats to get water from the ice.

July 24—We continued to get water. At 10 o'clock the ship's boats and the long boats were pulled up again, and we sailed out of the bay and the channel, keeping close alongside, and leaving finally after taking observations. It appears that the islands surrounding us were North Bluff Island and West Savage Island. The land east of this bay was the mainland of Terniatta [Baffin Land]. This land produces nothing but moss, a very little wood, and a great deal of game.

July 25—We had to heave to, to avoid the ice which surrounded us.

July 26—Still caught in the ice, and unable to steer, we had to make fast to an ice floe. We remained there until 9 p.m.

July 28—Seeing an ice-pack ahead, we looked for a likely opening to pass through it.

July 29—We started in, but were obliged to make fast to an ice floe.

Aug. 2—Trying to find a way out of the ice-pack, having lost sight of the Commandant during the night. We finally came out of the ice-pack at 3 o'clock in the afternoon, after having suffered considerable damage from the pounding of the floes of ice, of which there were great quantities.

Aug. 6—We were obliged to change our course because of something which lay ahead.

Aug. 9[3]—Having sighted land which we took to be Cape Churchill at noon, we approached the land at 4 o'clock in the afternoon, and observed a fort from which a jack was flying on shore, which was said to be Prince of Wales's Fort. We dropped anchor 1 league from the fort, then flying the English flag and pennon we lowered our ship's boat and our long boat, the Commandant and the *Astrée* doing likewise. We armed them to go and look for a suitable place to land. At 2.30 a.m. Monsieur de Rostin [Rostaing], Major in the Regiment d'Armoniaque [Armagnac], left the *Sceptre* with 150 of the men of his regiment to make a landing, which he did within cannon-shot[4] of the fort, without any incident. At the same time he sent one of the officers of his regiment bearing a flag of truce, to summon the governor of the fort to surrender. He surrendered at 7 a.m. without making any resistance. Thereupon the English flag was lowered, and the French flag and pennon run up. His Majesty's ships under the command of Monsieur de Lapérouse lowered their English flag and hoisted the French flag and pennon. Monsieur de Rostin entered the fort with his troops.

They found forty-two 36-pounders and 56 English Europeans[5] [as opposed to English half-breeds], as well as a large number of natives. The fort was in good condition, being built of fine freestone, with powder magazines roofed with lead. The fort was constructed with four fronts, and palisades, and a battery of 6 swivel guns which could fire within range under cover [?] (*à portée à couvert*).

Right away our men fired the artillery of the fort at random. At the same time, Monsieur de Lapérouse, commanding the *Sceptre*, fired a salute of 9 guns. The captains of His Majesty's ships came ashore and found in the storehouses a considerable quantity of skins and provisions and coloured cloth. We set to work to dismantle and destroy the gun-pivots and to demolish the embrasures.

Aug. 10—We sent our boats ashore to transfer the supplies from the fort on board the *Astrée*. During the same day, we began to mine the fort in order to blow it up.

Aug. 11—At 9 a m. we prepared to hoist sail in order to go and take Fort York. When the fort had been blown up our boats picked up the troops at 10 o'clock, and we weighed anchor at once.

1. A small island at the southeast end of the Bahamas group, marking a passage through the archipelago.
2. According to De la Monneraye, the French had now reached the banks of Newfoundland. The ship pursued was doubtless a fishing schooner. Here too De la Perouse opened his sealed orders and learned where he was being sent. The purpose of his expedition had been kept so secret he was not supplied with proper clothing, and his men had to sail through the ice packs described below wearing only tropical kit, says De la Monneraye.
3. Umfreville gives Aug. 8 as the day the French arrived and Aug. 9 as the day the fort surrendered. All three French accounts, however, say they arrived on Aug. 9 and took the fort on Aug. 10. They are probably correct.
4. This would probably mean any distance up to about 3000 yards.
5. Umfreville gives the number of defenders at only 39. De la Monneraye puts it at a round 50. Samuel Hearne, who commanded the fort, states in the next-to-last paragraph of his *Journey . . . to the Northern Ocean* that the number of men under him at Churchill River never amounted to more than 53 in any year. Umfreville may well be correct here, as in 1782 the Saskatchewan posts' need of men left the Bay posts thinly manned.

Aug. 13—At 3 o'clock in the afternoon, we sighted a ship. We had to put on all sail. The ship was out of range of our guns at sunset, and we lost sight of it during the night[6].

Aug. 14—We set sail to return to Prince of Wales's Fort, thinking we might find there the ship we had pursued. We had to put on all sail. We cast anchor 1 league from the fort at noon. We went ashore at once. We found about 60 natives who were taking refuge in the fort which had not completely burned down. Among them were some who seemed dejected at the sight of the misfortunes which we had brought down on them. Forthwith we went back on board and set sail to rejoin the Commandant and the *Astrée*.

Aug. 17—At 5 o'clock we came upon the Commandant and the *Astrée* which were at anchor 4 leagues from Fort York.

Aug. 20—At 3 o'clock in the afternoon we sent our long boat to take the gunners of the Artillery, who would be needed for the landing, on board the *Sceptre*. At the same time we sailed closer in to the aforementioned fort.

Aug. 21—Monsieur de Lapérouse and Monsieur de Langle, who was in command of the division, set out to go ashore. The ships were left under the command of Monsieur de Lajaille.

Aug. 25—We have had a very unhappy day. Two of our cables broken, two of our anchors lost, our tiller bar broken at the mortaise. Having lost hope, we let go our sheet anchor, and dropped it to the bottom[7].

Aug. 28—9 a.m.—We had word concerning Fort York, that they had surrendered on the 22nd of the month. The fort was made of wood, and was defended by a battery of fourteen 22-pounders. The four bastions of the fort were simply storehouses in which were kept their skins and bales of coloured cloth and a great many muskets.

We took prisoner the Governor of Fort Severn[8], having discovered him at Fort York.

Aug. 29—We picked up the troops from the frigate *Astreé*.

Aug. 31—At 8 p.m. our tiller bar broke at the mortaise. Within the hour our starboard cable gave way, and as a consequence we lost our anchor. Thereupon, to avoid any further mishap, we paid out the big cable to 150 fathoms.

Sept. 2—We set sail from Hudson's Bay to go to Cadiz in Spain, where I am at the present time. We arrived here on Oct. 12th of this year[9].

Note in a modern hand: This account is the work of a marine officer, named Du Tremblier, who on his return to Angers spent the years of the Revolution and the Empire there.

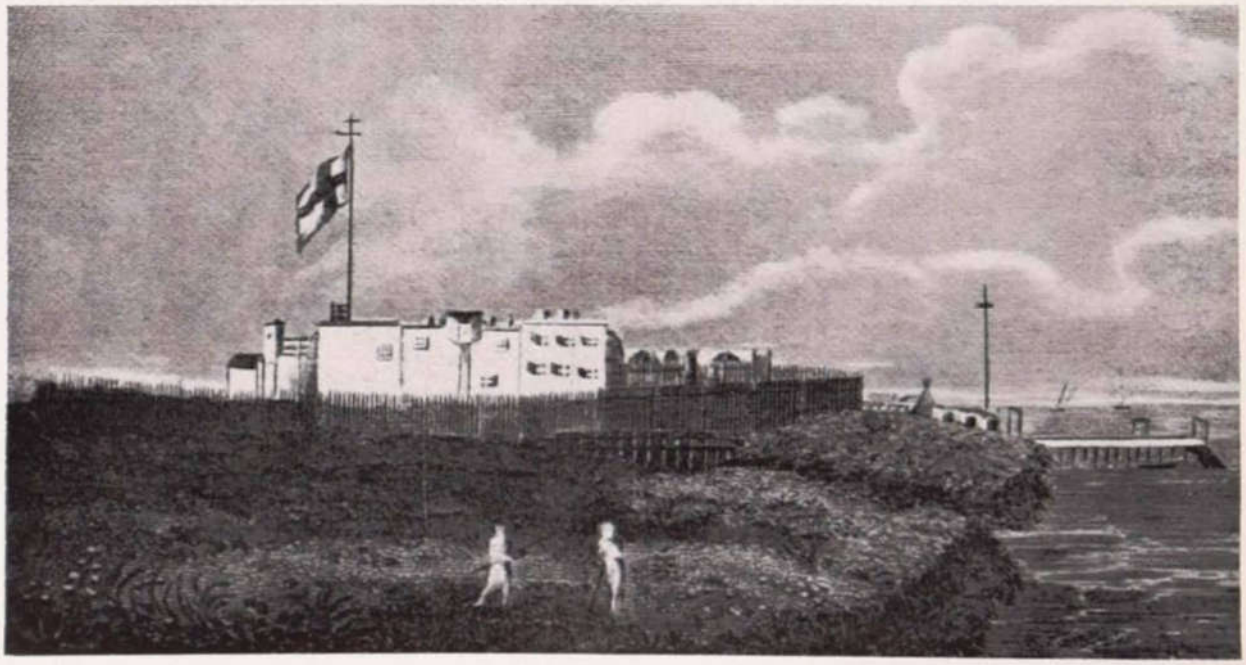
6. This was the H B C supply ship *Prince Rupert*, Capt. Wm. Christopher, on her way to Prince of Wales's Fort.

7. On this date De la Perouse records "a very heavy gale" which caused him "the greatest anxiety for my ships anchored on the open coast . . . If it had lasted some hours longer, the frigate of the Sieur de la Jaille would have been lost and 300 men drowned"—and among the 300 would have been the author of the narrative here printed.

8. This was Matthew Cocking.

9. This shows the account was written between Oct. 12 and the end of the year 1782.

York Fort in Hearne's day. This engraving, after a drawing by Hearne, was published five years after his death, in the "European Magazine" for June 1797, and captioned "A South-West View of Prince of Wales's Fort." The evidence, however, suggests that it is rather York Factory. Obviously it is not the great stone fort. Neither can it be the fort that Hearne built on his return in 1783, for there are no high rocks behind it. On the other hand it agrees almost perfectly with Turnor's plan of York Fort in 1778, and it is obviously the same fort as that which appears in Schooling's history of the H B C, page 98, over the caption "Fort York, 1782."



BOOK REVIEWS

Pictures of the Past

THE PICTURE GALLERY OF CANADIAN HISTORY, Vol. III, by C. W. Jefferys, assisted by T. W. McLean. Ryerson Press, Toronto, 1950. 242 pages.

THE first two volumes of this trilogy were reviewed in the *Beaver* for December 1942 and September 1945. Vol. I covered the period from the discovery to 1763, and Vol. II from 1763 to 1830. The present book deals with the next sixty years.

The chief difference between Vol. III and its predecessors is that several half-tones are used, showing actual scenes as they appeared to the camera's eye, or to the eye of the contemporary magazine illustrator. On the other hand, many of the pen-and-ink drawings are copies of photos—and wonderfully exact copies they are. As evidence of this fidelity to the original one can compare the line portraits of H B C factors on page 103 with the half-tone photographs in various copies of the *Beaver*—including the present one. About twenty-five sketches in all are copies of *Beaver* illustrations, but as credits become wearisome when repeated too often, mention has been made of this source in only two or three instances.

Since detail is the outstanding characteristic of a volume like this, the reviewer's comments must also be detailed. Some of the points that have been noted by this reviewer are as follows (numbers refer to pages):

1. The Indian is said to be speaking to Pelly in 1825, but as explained in the *Beaver* for December 1945 and March 1946, the original of this picture represents Gov. Bulger in Fort Douglas on May 22, 1823.

4. Most of these sketches of trade goods are from a picture in the March 1944 *Beaver*; but the shape of the snow knife is not quite right (balance is all-important with such an implement), and the lower ice chisel has much too wide a blade.

118. The photo of Big Bear and his sons at Fort Pitt is also copied on page 123. 148. The Red River or Hudson's Bay style of framed log house, which was used across the north, and which was not included in Vol. II, is shown here. 154-5. There is a little confusion here in regard to the steamer *Northwest*. The picture on page 154 is from a photo in the *Beaver*. The one on page 155 is from a painting by Lindemere, who copied it from a photograph and added a few figures.

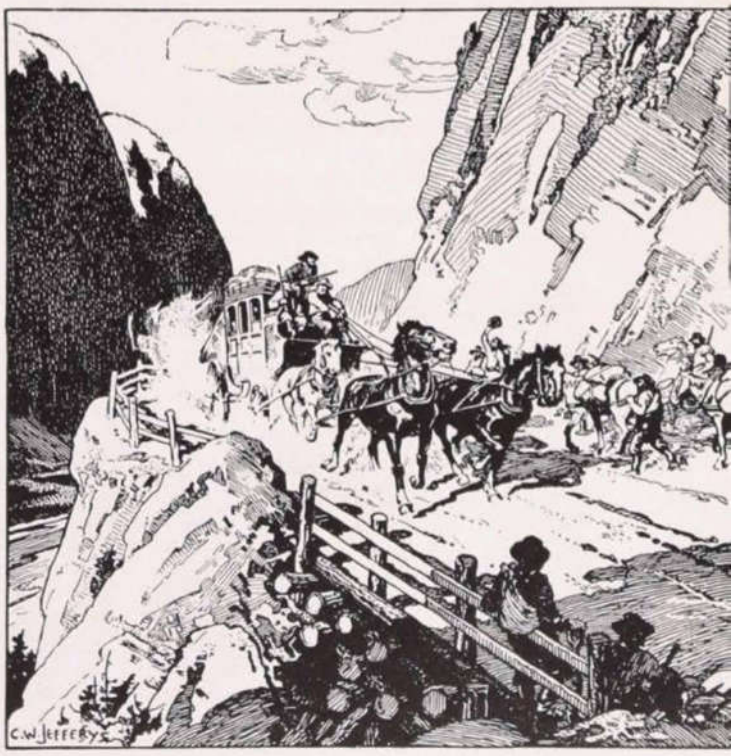
240. The notes on snowshoes contain a few errors. The Eskimos do not use snowshoes, with the exception of some in Alaska. A short, broad shoe is by no means preferable for the forest, since a long, narrow one gets between the trees more easily; but it *is* better for hilly country. To say that the Indian's snowshoe was always broad is inaccurate, to put it mildly. What about the Loucheux type, and the widely distributed Cree type? And quite a lot of readers will disagree with the statement that a man on snowshoes can move over snow covered flatland with more ease and rapidity than one on skis.

As in the other two volumes, many of Dr. Jefferys' pen-and-ink drawings are a delight to the eye. The painstaking care with which they are done is equalled only by the meticulousness of his research into the finest of details. He himself has visited the battlegrounds of the 1885 Rebellion and the country around them, and a dozen pages are devoted to pictures of that area.

The book is divided into five parts, but the plan of it is not at first apparent. An explanation of the grouping would be welcome, but on the whole it is seen to be chronological. And at the end of this last volume there is an index which covers all three.

For anyone who wants to know the details of the houses, the costumes, the implements, weapons, and tools, the furniture, and the means of transportation familiar to Canadians of other days, one cannot too strongly recommend the study of these three volumes, illustrated by the dean of Canadian historical artists.—*C.W.*

From Dr. Jefferys' "Picture Gallery." Stage coach on the Cariboo Road guarded by armed men, with miners going in.



Canada's Story

THE GREAT ADVENTURE, An Illustrated History of Canada for Young Canadians, by Donalda Dickie, illustrated by Lloyd Scott. J. M. Dent, Toronto, 1950. 464 pages.

THE history of Canada," writes Dr. Dickie in her foreword to this admirable book, "is a thoroughly good story; a 'movie' in technicolor, enacted on a vast stage, by characters lively, intriguing, romantic, wise and foolish, good and bad, but hardly ever dull. It is full of excursions and alarms; hairbreadth escapes with life and fortune perched upon a paddle blade; great attempts made boldly, lost or won gaily; important events with at least one development that has played, and is playing, an important part in the evolution of the free world today." And in that same spirit, she has written her long story, and Mr. Scott has illustrated it.

To condense the history of Canada from the age of the dinosaurs to the present into a 464-page book, and still retain enough detail to make good anecdotes out of certain episodes, is a very difficult task. And it's not to be wondered at if the author does not always succeed. Only a synopsis of many events can be given. A case in point is the defense of La Tour's fort on the St. John River—an episode which would surely form the basis for a first rate adventure movie. This is how it is told in the book:

"Charnisay, the villain of the play, at once seized De Razilly's district and attacked La Tour's post on the St. John. Charles was away on a trading trip, but his wife Lady de la Tour, a brave woman and a 'bonny fighter,' defended their fort until it was secretly opened to the enemy by a traitor. Charnisay hanged nine of Lady de la Tour's men and she herself died of horror and grief. The villain was preparing to move against Denys on the Gulf shore when he was drowned. Charles now came marching home, married Charnisay's widow and, in his turn, ruled both the Penobscot and Saint John regions."

It should be added, however, that the episode is made less confusing by one of Mr. Scott's vivid sketches combined with a map.

This reviewer would have taken more kindly to the volume if it had looked less like a text book, divided into six "Adventures" each of which is subdivided into chapters, sections, and subsections. If it is to be used in the class room these divisions are probably necessary (Dr. Dickie should know—she's a teacher and writer of wide experience) but they do brand the whole thing as a school book, and as such it immediately becomes suspect as a sugar-coated pill. Nevertheless, it is by far the most readable history of Canada for children that this reviewer has come across. The author called on her pupils to help write it, and those in grades 6, 7, and 8 read and discussed each chapter as it was drafted. One welcome result of these discussions was the avoidance of much "dry stuff about governments" which mars so many junior histories of Canada.

Readers of this magazine will be mostly interested in the chapters dealing with the fur trade and the West and North. Throughout the book the men of the H B C are referred to as the "Gentlemen" as distinct from the "Pedlars," and one fears this will only strengthen the prevalent impression that the H B C men called themselves "Gentlemen Adventurers." A couple of small errors noticed were "coureurs *des* bois" (instead of *de* bois), and the elevation of George Simpson to the rank of Governor of the Hudson's Bay Company at the age of 29. Simpson was merely Governor-in-Chief of Rupert's Land, and he was not even appointed Governor of the Northern Department until he was 34 (as this reviewer pointed out in the *Beaver* 17 years ago). The reader is also surprised to find a good Canadian like Dr. Dickie using that unfortunate word "Britisher."

One cannot help feeling that the book will be remembered less for the text than for the illustrations, of which there are a great many. In Lloyd Scott the publishers have found a young Canadian artist who will surely be in great demand for illustrating similar books and stories. His pen and ink sketches are mostly quite rough, yet they possess amazing detail of expression, with drama or humour

The Montreal fur fair of the 17th century; one of Lloyd Scott's sketches for "The Great Adventure."

enlivening many of them. Look at the picture on page 42, for instance, showing Sir Humphrey Gilbert taking possession of England's first colony at St. John's, Newfoundland. It is a ceremony of great dramatic import and dignity. But the dignity is happily lightened by a glance at the callow youth on the left, who is surreptitiously guzzling raspberries and being reproved for it *sotto voce* by one of his superiors. Humour is also evident in the pictures of the Montreal fur fair, the marriage mart, in the girls carrying the fish, the bagpipers terrifying the Indians, and in several others, including the sketch labelled "London Merchants Load Ships for Hudson Bay." This last, however, must have been wrongly captioned, as the scene is far from London, and one of the onlookers is a befeathered Indian. Moreover, the ship is being *un*loaded, and one of the men is carrying a horse saddle—an article that would never be used on the Bay.

Lloyd Scott can also portray drama, as is evident from the pictures of Frontenac and of Brock; and exciting action, as in sketches of the bucket brigade and the fire engine. And to bring the story up to date he has even included a picture of sandbaggers working on the 1950 Winnipeg dikes.—*C.P.W.*

Fraser Valley Guide

MILESTONES ON THE MIGHTY FRASER by C. P. Lyons. J. M. Dent, Toronto, 1950. 157 pages.

THIS is a travel guide for the motor road between Vancouver and Kamloops, arranged so that you can identify each reference by the reading on your speedometer. You set it at zero at the Hudson's Bay store in Vancouver—or, if you are driving in the opposite direction, in Kamloops—and 277.5 miles later you are at the end of your journey, having also traversed 154 pages of reading matter which gives you the most interesting information about the towns, mountains, flowers, geological formations, bridges, rivers, lakes, trees, side roads, Indians, waterfalls, animals and birds that you pass en route.

There is a wealth of background data about the objects of interest that have any notable history attached to them. The author has gone to the right places for information on subjects that aren't familiar to him as a forest engineer and park executive, but it cannot be said that his historical notes are faultless. On page 50, for instance, there is a somewhat fantastic item about Lady Franklin searching for her lost husband along the coast and up the Fraser.

Numerous pen-and-ink sketches are scattered throughout the text, and twenty-five half-tones, the latter mainly of historical scenes from the B.C. Archives. The plan is well thought out, and Mr. Lyons has obviously put a lot of consideration and hard work into his book. One would welcome similar books dealing with other parts of Canada. —*C. Parnell.*

EARLY MAN IN THE NEW WORLD, by Kenneth Macgowan. The Macmillan Company, Toronto and New York, 1950. 260 pages.

THE question of the origin of the natives of North and South America was one of the first to attract the attention of intelligent man after Columbus returned from his first voyage. Many hypotheses were advanced, some of them fantastic, others at least worthy of consideration. The first suggestion made, that the natives of the New World are the descendants of tribes who migrated from Asia, is the belief held by every anthropologist today. Until quite recently it was thought that man had arrived in the New World comparatively recently and some authorities, especially Hrdlicka, in the field of physical anthropology attacked with determination any attempt to prove the existence of Early Man in either North or South America.

Since the discovery of the Folsom culture, with its undoubted association of human weapons and the remains of now extinct mammals, there has been a great increase in the number of students devoting themselves to the origin of man in America and all the associated questions which surround the central problem. So much has been written that the layman, and in fact the archaeologist too, finds himself in a thick forest of literature which he must study very carefully if he is to avoid being lost in its depths.

Mr. Macgowan has provided a guide which will be extremely useful to the layman and to the scientist alike. For the layman indeed, it is probably the best book of its kind available, and many an archaeologist who has not specialized in this somewhat restricted field will be grateful for this lucid and unprejudiced discussion.

It is obvious that the author has read widely and thought carefully; the list of authorities he has consulted includes most of the eminent scholars working in that field. His style is light but by no means flippant and it is gratifying to note that the illustrations really do illustrate; they contribute a great deal to the text and are an essential part of the book.

Not being an archaeologist himself, Mr. Macgowan has not absorbed any of the prejudices, or been blinded by the preferences, of any school or individual. This shows best perhaps in his willingness to accept the possibility of man's having lived in the Americas in the latest inter-glacial period, and his agreement with Hooton that men of Negroid and Australoid stock may have been here in the earliest days. There are excellent chapters on culture resemblances on the two sides of the Pacific, on the comparison between early man in the Old World and the New, independent invention versus diffusion, the extinction of the large mammals of America thousands of years ago, and the routes of migration from the Old World to the New.

Kenneth Macgowan is a man of many interests, famous as a playwright, a producer and a director of motion pictures, a dramatic critic, and an author. For the many readers of the *Beaver* who are interested in this subject, there is no better volume available.—*Douglas Leechman.*

SPRING PACKET

Gift to the Nation

On January 26 it was announced in the daily press that the Hudson's Bay Company had presented historic Lower Fort Garry to the people of Canada. Thus two of the three great stone forts built by the Company are now classed as National Historic Parks. All three were erected in what is now Manitoba—Prince of Wales's Fort on Hudson Bay, begun in 1732; Lower Fort Garry, begun in 1831; and Upper Fort Garry, begun on the site of Winnipeg in 1835.

Of these, the Lower Fort is the only one remaining intact. The great defensive fort at the mouth of the Churchill was demolished—as much as possible—by the French, fifty years after the foundations were laid (see page 14); and nothing now remains of the Upper Fort but the stone gateway across the street from Hudson's Bay House. The Dominion Government has restored much of Prince of Wales's Fort, but though plans for rebuilding Upper Fort Garry have been put forward from time to time, nothing was ever done. Lower Fort Garry therefore remains the only complete stone fur trade fort on the continent.

Reasons for building a fort in that locality were discussed in the article "The City that Never Was," in the September 1950 *Beaver*. Briefly, it was erected as a new headquarters for the Red River district on ground that would remain dry during floods, and sufficiently far downstream so that the boats from Lake Winnipeg would not have to surmount the St. Andrews Rapids.

The first building to go up was the central dwelling, now used as a clubhouse by the Motor Country Club. Governor Simpson and his wife moved in there in the fall of 1832, and the fort has thus been continually occupied for nearly 120 years.

That is one of the most attractive features of the Lower Fort—the air of continuing activity which pervades it. One does not feel that, as in the case of other historic spots, the life of the fort came to an end, and that after considerable time had elapsed, it was deliberately recreated as an historical curiosity. Lower Fort Garry has been occupied as a place to live and a place to work ever since its foundation, and the thread of its life is unbroken. Lawns and flowers have been cultivated there for a hundred years, and today its gardens are among the finest in Manitoba.

To laze in a deck chair on the grass there, sipping tea under the boughs on a scent laden summer's afternoon, is to breathe the very breath of history. One needs little imagination to picture the various activities of the fort in other days—the bustle that prevailed everywhere when a York boat brigade was departing, or the excitement when the bang of a cannon announced the arrival of the Governor in his express canoe; the crisp commands and the rattle of muskets as the Royal Warwickshires paraded and drilled, over a century ago; the thudding of galloping hooves as the newly formed North West Mounted Police rode briskly in at the river gate, their scarlet tunics flashing against the grey stone walls; the unheralded arrival of browned, bearded men of the fur trade, fresh from making discoveries in the far reaches of the North; and the colour and movement of a thousand Indians, gathered together to sign their first treaty with the young Dominion of Canada.

All these pictures, and many more, pass before the mind's eye of the visitor to the fort who knows of the stirring scenes those stone walls have witnessed. In all the Dominion there is nothing to compare with it, and now that Canada has taken it over, Canadians will feel that, in one more sense, they have come into their own.

Contributors

Lt.-Col. Nevill A. D. Armstrong, F.R.G.S., has spent over twenty years in the Yukon. During World War I he served with Canadian Highland regiments, and in the recent war he demonstrated fieldcraft, stalking, etc., to thousands of men in the 1st and 2nd Canadian Divisions. He is the author of "Yukon Yesterdays," "After Big Game in the Upper Yukon," and "Fieldcraft and Stealth." . . . *John G. Cormack* has served the Company for nearly 22 years, mostly in the Eastern Arctic. He is at present managing the post at Fond du Lac, Saskatchewan, on Lake Athabasca. . . . Yukon-born *Richard Finnie*, author of "Lure of the North," "Canada Moves North," "Canol," etc., is now historian of the Bechtel International Corpn., a large San Francisco engineering firm. He is widely known for his documentary films and lectures on the North. . . . *John S. Galbraith* is assistant professor of history at the University of California. He specializes in H B C history of the 19th century. . . . *Richard Glover*, Ph.D., is associate professor of history at the University of Manitoba. . . . *W. J. Granberg* is a free lance writer of Seattle. . . . *Stephen Greenlees*, formerly with the National Film Board, is now making documentaries on his own. . . . *Florence and Lee Jaques* are well known for their charmingly written and beautifully illustrated books, "Canoe Country," "Snowshoe Country," "The Geese Fly High," etc. As a respite from roughing it they live in New York City. . . . *W. F. Joss* is manager of the H B C post on Reid Island, in the Western Arctic. . . . *Douglas Leechman*, Ph.D., anthropologist with the National Museum in Ottawa, is making a special study of the migration routes of the first men in North America. . . . *C. P. Wilson* is editor of the "Beaver."

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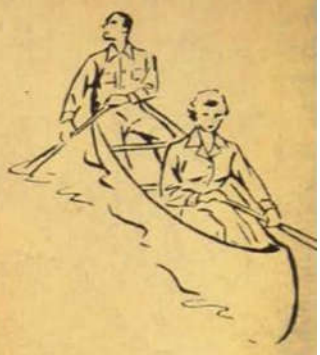

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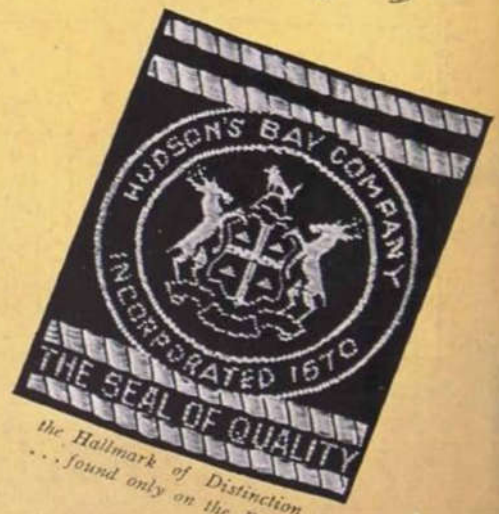

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